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(54) Title: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR ANALYSIS OF GENE
EXPRESSION IN HUMAN PLACENTA

(57) Abstract: A single exon nucleic acid microarray comprising a plurality of single exon nucleic acid probes for measuring gene
expression in a sample derived from human placenta is described. Also described are single exon nucleic acid probes expressed in
the placenta and their use in methods for detecting gene expression.

WO 01/57272 A2

HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL
FOR ANALYSIS OF GENE EXPRESSION IN HUMAN PLACENTA

CROSS REFERENCE TO RELATED APPLICATIONS

5

The present application is a continuation-in-part of U.S.
patent application serial nos. 09/632,366, filed August 3,
2000 and 09/608,408, filed June 30, 2000; claims the
benefit under 35 U.S.C. s 119(e) of U.S. provisional patent
10 application serial nos. 60/236,359, filed September 27,
2000, 60/234,687, filed September 21, 2000, 60/207,456,
filed May 26, 2000, and 60/180,312, filed February 4, 2000;
and further claims the benefit under 35 U.S.C. s 119(a) of
UK patent application no. 0024263.6, filed October 4, 2000,
15 the disclosures of which are incorporated herein by
reference in their entireties.

REFERENCE TO SEQUENCE LISTING AND INCORPORATION BY
REFERENCE THEREOF

20

The present application includes a Sequence Listing in
electronic format, filed pursuant to PCT Administrative
Instructions 801 - 806 on a single CD-R disc, in
triplicate, containing a file pto_PLACENTA.txt, created 24
25 January 2001, having 26,548,337 bytes. The Sequence
Listing contained in said file on said disc is incorporated
herein by reference in its entirety.

Field of the Invention

30

The present invention relates to genome-derived
single exon microarrays useful for verifying the expression
of regions of genomic DNA predicted to encode protein. In
particular, the present invention relates to unique genome-
35 derived single exon nucleic acid probes expressed in human

placenta and single exon nucleic acid microarrays that include such probes.

Background of the Invention

5 For almost two decades following the invention of general techniques for nucleic acid sequencing, Sanger et al., *Proc. Natl. Acad. Sci. USA* 70(4):1209-13 (1973); Gilbert et al., *Proc. Natl. Acad. Sci. USA* 70(12):3581-4 (1973), these techniques were used principally as tools to
10 further the understanding of proteins - known or suspected - about which a basic foundation of biological knowledge had already been built. In many cases, the cloning effort that preceded sequence identification had been both informed and directed by that antecedent
15 biological understanding.

 For example, the cloning of the T cell receptor for antigen was predicated upon its known or suspected cell type-specific expression, by its suspected membrane association, and by the predicted assembly of its gene via
20 T cell-specific somatic recombination. Subsequent sequencing efforts at once confirmed and extended understanding of this family of proteins. Hedrick et al., *Nature* 308(5955):153-8 (1984).

 More recently, however, the development of high
25 throughput sequencing methods and devices, in concert with large public and private undertakings to sequence the human and other genomes, has altered this investigational paradigm: today, sequence information often precedes understanding of the basic biology of the encoded protein
30 product.

 One of the approaches to large-scale sequencing is predicated upon the proposition that expressed sequences - that is, those accessible through isolation of mRNA - are of greatest initial interest. This "expressed
35 sequence tag" ("EST") approach has already yielded vast

amounts of sequence data (see for example Adams et al.,
Science 252:1651 (1991); Williamson, *Drug Discov. Today*
4:115 (1999)). For nucleic acids sequenced by this
approach, often the only biological information that is
5 known *a priori* with any certainty is the likelihood of
biologic expression itself. By virtue of the species and
tissue from which the mRNA had originally been obtained,
most such sequences are also annotated with the identity of
the species and at least one tissue in which expression
10 appears likely.

More recently, the pace of genomic sequencing has
accelerated dramatically. When genomic DNA serves as the
initial substrate for sequencing efforts, expression cannot
be presumed; often the only *a priori* biological information
15 about the sequence includes the species and chromosome (and
perhaps chromosomal map location) of origin.

With the ever-accelerating pace of sequence
accumulation by directed, EST, and genomic sequencing
approaches – and in particular, with the accumulation of
20 sequence information from multiple genera, from multiple
species within genera, and from multiple individuals within
a species – there is an increasing need for methods that
rapidly and effectively permit the functions of nucleic
sequences to be elucidated. And as such functional
25 information accumulates, there is a further need for
methods of storing such functional information in
meaningful and useful relationship to the sequence itself;
that is, there is an increasing need for means and
apparatus for annotating raw sequence data with known or
30 predicted functional information.

Although the increase in the pace of genomic
sequencing is due in large part to technological changes in
sequencing strategies and instrumentation, Service, *Science*
280:995 (1998); Pennisi, *Science* 283: 1822-1823 (1999),
35 there is an important functional motivation as well.

While it was understood that the EST approach would rarely be able to yield sequence information about the noncoding portions of the genome, it now also appears the EST approach is capable of capturing only a fraction of
5 a genome's actual expression complexity.

For example, when the *C. elegans* genome was fully sequenced, gene prediction algorithms identified over 19,000 potential genes, of which only 7,000 had been found by EST sequencing. *C. elegans* Sequencing Consortium,
10 *Science* 282:2012 (1998). Analogously, the recently completed sequence of chromosome 2 of *Arabidopsis* predicts over 4000 genes, Lin et al., *Nature*, 402:761 (1999), of which only about 6% had previously been identified via EST sequencing efforts. Although the human genome has the
15 greatest depth of EST coverage, it is still woefully short of surrendering all of its genes. One recent estimate suggests that the human genome contains more than 146,000 genes, which would at this point leave greater than half of the genes undiscovered. It is now predicted that many
20 genes, perhaps 20 to 50%, will only be found by genomic sequencing.

There is, therefore, a need for methods that permit the functional regions of genomic sequence - and most importantly, but not exclusively, regions that
25 function to encode genes - to be identified.

Much of the coding sequence of the human genome is not homologous to known genes, making detection of open reading frames ("ORFs") and predictions of gene function difficult. Computational methods exist for predicting
30 coding regions in eukaryotic genomes. Gene prediction programs such as GRAIL and GRAIL II, Uberbacher et al., *Proc. Natl. Acad. Sci. USA* 88(24):11261-5 (1991); Xu et al., *Genet. Eng.* 16:241-53 (1994); Uberbacher et al., *Methods Enzymol.* 266:259-81 (1996); GENEFINDER, Solovyev et al.,
35 *Nucl. Acids. Res.* 22:5156-63 (1994); Solovyev et al.,

Ismb 5:294-302 (1997); and GENESCAN, Burge et al., *J. Mol. Biol.* 268:78-94 (1997), predict many putative genes without known homology or function. Such programs are known, however, to give high false positive rates. Burset et al.,
5 *Genomics* 34:353-367 (1996). Using a consensus obtained by a plurality of such programs is known to increase the reliability of calling exons from genomic sequence. Ansari-Lari et al., *Genome Res.* 8(1):29-40 (1998)

Identification of functional genes from genomic
10 data remains, however, an imperfect art. For example, in reporting the full sequence of human chromosome 21, the Chromosome 21 Mapping and Sequencing Consortium reports that prior bioinformatic estimates of human gene number may need to be revised substantially downwards. *Nature*
15 405:311-199 (2000); Reeves, *Nature* 405:283-284 (2000).

Thus, there is a need for methods and apparatus that permit the functions of the regions identified bioinformatically - and specifically, that permit the expression of regions predicted to encode protein - readily
20 to be confirmed experimentally.

Recently, the development of nucleic acid microarrays has made possible the automated and highly parallel measurement of gene expression. Reviewed in Schena (ed.), DNA Microarrays : A Practical Approach
25 (Practical Approach Series), Oxford University Press (1999) (ISBN: 0199637768); *Nature Genet.* 21(1)(suppl):1 - 60 (1999); Schena (ed.), Microarray Biochip: Tools and Technology, Eaton Publishing Company/BioTechniques Books Division (2000) (ISBN: 1881299376).

30 It is common for microarrays to be derived from cDNA/EST libraries, either from those previously described in the literature, such as those from the I.M.A.G.E. consortium, Lennon et al., *Genomics* 33(1):151-2 (1996), or from the construction of "problem specific" libraries
35 targeted at a particular biological question, R.S. Thomas

et al., *Cancer Res.* (in press). Such microarrays by definition can measure expression only of those genes found in EST libraries, and thus have not been useful as probes for genes discovered solely by genomic sequencing.

5 The utility of using whole genome nucleic acid microarrays to answer certain biological questions has been demonstrated for the yeast *Saccharomyces cerevisiae*. De Risi et al., *Science* 278:680 (1997). The vast majority of yeast nuclear genes, approximately 95% however, are single
10 exon genes, i.e., lack introns, Lopez et al., *RNA* 5:1135-1137 (1999); Goffeau et al., *Science* 274:563-67 (1996), permitting coding regions more readily to be identified. Whole genome nucleic acid microarrays have not generally been used to probe gene expression from more complex
15 eukaryotic genomes, and in particular from those averaging more than one intron per gene.

 Given the substantial impact on human morbidity and mortality of diseases directly caused by genetic defect, and given the profound influence of genetic factors on the
20 predisposition, onset, and/or aggressiveness of most, if not all human diseases, there has long been interest in efficient and safe means for early detection of gene defects and polymorphisms that cause, are associated with, or are implicated in development of disease.

25 Recently, techniques have been developed that permit direct sampling of placenta earlier in pregnancy. There is a need for methods and apparatus that permit analysis of placenta samples for the prediction and diagnosis of diseases caused by genetic defect,
30 particularly those with polygenic etiology.

Summary of the Invention

35 The present invention solves these and other

problems in the art by providing methods and apparatus for predicting, confirming, and displaying functional information derived from genomic sequence. The present invention also provides apparatus for verifying the
5 expression of putative genes identified within genomic sequence.

In particular, the invention provides novel genome-derived single exon nucleic acid microarrays useful for verifying the expression of putative genes identified
10 within genomic sequence.

The present invention also provides compositions and kits for the ready production of nucleic acids identical in sequence to, or substantially identical in sequence to, probes on the genome-derived single exon
15 microarrays of the present invention.

Accordingly, in a first aspect of the invention, there is provided a spatially-addressable set of single exon nucleic acid probes for measuring gene expression in a sample derived from human placenta, comprising a plurality
20 of single exon nucleic acid probes according to any one of the nucleotide sequences set out in SEQ ID NOS: 1 - 13,232 or a complementary sequence, or a portion of such a sequence.

By plurality is meant at least two, suitably at least 20, most suitably at least 100, preferably at least
25 1000 and, most preferably, upto 5000.

In one embodiment of the first aspect, each of said plurality of probes is separately and addressably amplifiable.

30 In an alternative embodiment, each of said plurality of probes is separately and addressably isolatable from said plurality.

In a preferred embodiment, each of said plurality of probes is amplifiable using at least one common primer.
35 Preferably, each of said plurality of probes is amplifiable

using a first and a second common primer.

In yet another embodiment, said set of single exon nucleic acid probes comprises between 50 - 20,000 probes, for example, 50 - 5000.

5 Suitably, said set of single exon nucleic acid probes comprises at least 50 - 1000 discrete single exon nucleic acid probes having a sequence as set out in any of SEQ ID NOS.: 1 - 26,232 or a complimentary sequence, or a portion of such a sequence.

10 Preferably, the average length of the single exon nucleic acid probes is between 200 and 500 bp. It is preferred that the average length should be at least 200bp, suitably at least 250bp, most suitably at least 300bp, preferably at least 400bp and, most preferably, 500 bp.

15 In another embodiment, the single exon nucleic acid probes lack prokaryotic and bacteriophage vector sequence. It is preferred that at least 50%, suitably at least 60%, most suitably at least 70%, preferably at least 75%, more preferably at least 80, 85, 90, 95 or 99% of said
20 single exon nucleic acid probes lack prokaryotic and bacteriophage vector sequence.

In another preferred embodiment, said single exon nucleic acid lack homopolymeric stretches of A or T. It is preferred that at least 50%, suitably at least 60%, most
25 suitably at least 70%, preferably at least 75%, more preferably at least 80, 85, 90, 95 or 99% of said single exon nucleic acid probes lack homopolymeric stretches of A or T.

Preferably, a spatially-addressable set of single
30 exon nucleic acid probes in accordance with the first aspect of the invention is addressably disposed upon a substrate.

Suitable substrates include a filter membrane which may, preferably, be nitrocellulose or nylon. The
35 nylon may preferably, be positively-charged. Other suitable

substrates include glass, amorphous silicon, crystalline silicon, and plastic. Further suitable materials include polymethylacrylic, polyethylene, polypropylene, polyacrylate, polymethylmethacrylate, polyvinylchloride, 5 polytetrafluoroethylene, polystyrene, polycarbonate, polyacetal, polysulfone, celluloseacetate, cellulosenitrate, nitrocellulose, and mixtures thereof.

In a second aspect of the invention, there is provided a microarray comprising a spatially addressable 10 set of single exon nucleic acid probes in accordance with the first aspect of the invention.

In one embodiment, a genome-derived single-exon microarray is packaged together with such an ordered set of amplifiable probes corresponding to the probes, or one or 15 more subsets of probes, thereon. In alternative embodiments, the ordered set of amplifiable probes is packaged separately from the genome-derived single exon microarray.

In another aspect, the invention provides genome- 20 derived single exon nucleic acid probes useful for gene expression analysis, and particularly for gene expression analysis by microarray. In particular embodiments of this aspect, the present invention provides human single-exon probes that include specifically-hybridizable fragments of 25 SEQ ID Nos. 13,233 - 26,232, wherein the fragment hybridizes at high stringency to an expressed human gene. In particular embodiments, the invention provides single exon probes comprising SEQ ID Nos. 1 - 13,232.

Accordingly, in a third aspect of the invention, 30 there is provided a single exon nucleic acid probe for measuring human gene expression in a sample derived from human placenta which is a nucleic acid molecule comprising a nucleotide sequence as set out in any of SEQ ID NOS.: 1 - 13,232 or a complementary sequence or a fragment thereof 35 wherein said probe hybridizes at high stringency to a

nucleic acid expressed in the human placenta.

In one embodiment, a single exon nucleic acid probe in accordance with the third aspect comprises a nucleotide sequence as set out in any of SEQ ID NOs.:

5 13,233 - 26,232 or a complementary sequence or a fragment thereof.

In a fourth aspect of the invention, there is provided a single exon nucleic acid probe for measuring human gene expression in a sample derived from human
10 placenta which is a nucleic acid molecule having a sequence encoding a peptide comprising a peptide sequence as set out in any of SEQ ID NOs.: 26,233 - 38,837 or a complementary sequence or a fragment thereof wherein said probe hybridizes at high stringency to a nucleic acid expressed
15 in the human placenta.

Preferably, a single exon nucleic acid probe in accordance with the third or fourth aspects of the invention comprises between at least 15 and 50 contiguous nucleotides of said SEQ ID NO:. It is preferred that the
20 single exon nucleic acid probe comprises at least 15, suitably at least 20, more suitably at least 25 or preferably at least 50 contiguous nucleotides of said SEQ ID NO:.

In another preferred embodiment, a single exon
25 nucleic acid probe in accordance with the third or fourth aspects of the invention is between 3kb and 25kb in length. It is preferred that said probe is no more than 3kb, suitably no more than 5kb, more suitably no more than 10kb, preferably 15kb, more preferably 20kb or, most preferably,
30 no more than 20kb in length.

Preferably, a single exon nucleic acid probe in accordance with either the fifth or sixth aspect of the invention is DNA, preferably single-stranded DNA, RNA or
PNA.

35 In another embodiment of either the third or

fourth aspect of the invention, a single exon nucleic acid probe is detectably labeled. Suitable detectable labels include a radionuclide, a fluorescent label or a first member of a specific binding pair. Suitable fluorescent labels include dyes such as cyanine dyes, preferably Cy3 and Cy5 although other suitable dyes will be known to those skilled in the art.

In a particularly preferred embodiment, a single exon nucleic acid probe in accordance with either the third or fourth aspect of the invention lacks prokaryotic and bacteriophage vector sequence. In yet another embodiment, a single exon nucleic acid probe in accordance with either the third or fourth aspect of the invention lacks homopolymeric stretches of A or T.

In a fifth aspect of the invention, there is provided an amplifiable nucleic acid composition, comprising:

the single exon nucleic acid probe in accordance with either of the third or fourth aspects of the invention; and at least one nucleic acid primer;

wherein said at least one primer is sufficient to prime enzymatic amplification of said probe.

In an sixth aspect of the invention, there is provided a method of measuring gene expression in a sample derived from human placenta, comprising:

contacting the single exon microarray in accordance with the second aspect of the invention, with a first collection of detectably labeled nucleic acids, said first collection of nucleic acids derived from mRNA of human placenta; and then

measuring the label detectably bound to each probe of said microarray.

In a seventh aspect of the invention, there is provided a method of identifying exons in a eukaryotic genome, comprising:

algorithmically predicting at least one exon from genomic sequence of said eukaryote; and then

detecting specific hybridization of detectably labeled nucleic acids to a single exon probe,

5 wherein said detectably labeled nucleic acids are derived from mRNA from the placenta of said eukaryote, said probe is a single exon probe having a fragment identical in sequence to, or complementary in sequence to, said predicted exon, said probe is included within a single exon
10 microarray in accordance with the first aspect of the invention, and said fragment is selectively hybridizable at high stringency.

In a eighth aspect of the invention, there is provided a method of assigning exons to a single gene,
15 comprising:

identifying a plurality of exons from genomic sequence in accordance with the seventh aspect of the invention; and then

measuring the expression of each of said exons in
20 a plurality of tissues and/or cell types using hybridization to single exon microarrays having a probe with said exon,

wherein a common pattern of expression of said exons in said plurality of tissues and/or cell types
25 indicates that the exons should be assigned to a single gene.

In an ninth aspect of the invention, there is provided a nucleic acid sequence as set out in any of SEQ ID NOs: 1 - 26,232 wherein said sequence encodes a peptide.

30 In a tenth aspect of the invention, there is provided a peptide encoded by a sequence comprising a sequence as set out in any of SEQ ID NOs: 13,233 - 26,232, or a complementary sequence or coding portion thereof.

In a preferred embodiment, a peptide may be
35 encoded by a sequence comprising a sequence set out in any

of SEQ ID NOS.: 1 -13,232 .

In a further aspect, the invention provides peptides comprising an amino acid sequence translated from the DNA fragments, said amino acid sequences comprising SEQ
5 ID NOS.: 26,233 - 38,837.

Accordingly in a eleventh aspect of the invention there is provided a peptide comprising a sequence as set out in any of SEQ ID NOS: 26,233 - 38,837, or fragment thereof.

10 In another aspect, the invention provides means for displaying annotated sequence, and in particular, for displaying sequence annotated according to the methods and apparatus of the present invention. Further, such display can be used as a preferred graphical user interface for
15 electronic search, query, and analysis of such annotated sequence.

Detailed Description of the Invention

20

Definitions

As used herein, the term "microarray" and phrase "nucleic acid microarray" refer to a substrate-bound collection of plural nucleic acids, hybridization to each
25 of the plurality of bound nucleic acids being separately detectable. The substrate can be solid or porous, planar or non-planar, unitary or distributed.

As so defined, the term "microarray" and phrase "nucleic acid microarray" include all the devices so called
30 in Schena (ed.), DNA Microarrays: A Practical Approach (Practical Approach Series), Oxford University Press (1999) (ISBN: 0199637768); *Nature Genet.* 21(1)(suppl):1 - 60 (1999); and Schena (ed.), Microarray Biochip: Tools and Technology, Eaton Publishing Company/BioTechniques Books
35 Division (2000) (ISBN: 1881299376). As so defined, the

term "microarray" and phrase "nucleic acid microarray" further include substrate-bound collections of plural nucleic acids in which the nucleic acids are distributably disposed on a plurality of beads, rather than on a unitary planar substrate, as is described, *inter alia*, in Brenner et al., *Proc. Natl. Acad. Sci. USA* 97(4):166501670 (2000); in such case, the term "microarray" and phrase "nucleic acid microarray" refer to the plurality of beads in aggregate.

10 As used herein with respect to a nucleic acid microarray, the term "probe" refers to the nucleic acid that is, or is intended to be, bound to the substrate; in such context, the term "target" thus refers to nucleic acid intended to be bound thereto by Watson-Crick complementarity. As used herein with respect to solution
15 phase hybridization, the term "probe" refers to the nucleic acid of known sequence that is detectably labeled.

As used herein, the expression "probe comprising SEQ ID NO.", and variants thereof, intends a nucleic acid
20 probe, at least a portion of which probe has either (i) the sequence directly as given in the referenced SEQ ID NO., or (ii) a sequence complementary to the sequence as given in the referenced SEQ ID NO., the choice as between sequence directly as given and complement thereof dictated by the
25 requirement that the probe hybridize to mRNA.

As used herein, the term "open reading frame" and the equivalent acronym "ORF" refer to that portion of an exon that can be translated in its entirety into a sequence of contiguous amino acids i.e. a nucleic acid sequence
30 that, in at least one reading frame, does not possess stop codons; the term does not require that the ORF encode the entirety of a natural protein.

As used herein, the term "amplicon" refers to a PCR product amplified from human genomic DNA, containing
35 the predicted exon.

As used herein the term "exon" refers to the consensus prediction of the various exon and gene predicting algorithms i.e. a nucleic acid sequence bioinformatically predicted to encode a portion of a
5 natural protein.

As used herein, the term "peptide" refers to a sequence of amino acids. The sequences referred to as PEPTIDE SEQ ID NOS.: are the predicted peptide sequences that would be translated from one of the exons, or a
10 portion thereof set out in exon SEQ ID NOS.: The codons encoding the peptide are wholly contained within the exon.

As used herein, a "portions" of a defined nucleotide sequence or sequences can be and, preferably, are fragments unique to that sequence or to one or a
15 combination of those sequences. A fragment unique to a nucleic acid molecule is one that is a signature for the larger nucleic acid molecule.

As used herein, the phrase "expression of a probe" and its linguistic variants means that the ORF
20 present within the probe, or its complement, is present within a target mRNA.

As used herein, "stringent conditions" refers to parameters well known to those skilled in the art. When a nucleic acid molecule is said to be hybridisable to another
25 of a given sequence under "stringent conditions" it is meant that it is homologous to the given sequence.

As used herein, the phrase "specific binding pair" intends a pair of molecules that bind to one another with high specificity. Binding pairs are said to exhibit
30 specific binding when they exhibit avidity of at least 10^7 , preferably at least 10^8 , more preferably at least 10^9 liters/mole. Nonlimiting examples of specific binding pairs are: antibody and antigen; biotin and avidin; and biotin and streptavidin.

35 As used herein with respect to the visual display

of annotated genomic sequence, the term "rectangle" means any geometric shape that has at least a first and a second border, wherein the first and second borders each are capable of mapping uniquely to a point of another visual object of the display.

As used herein, a "Mondrian" means a visual display in which a single genomic sequence is annotated with predicted and experimentally confirmed functional information.

10

Brief Description of the Drawings

The present invention is further illustrated with reference to the following non-limiting figures and examples in which:

FIG. 1 illustrates a process for predicting functional regions from genomic sequence, confirming the functional activity of such regions experimentally, and associating and displaying the data so obtained in meaningful and useful relationship to the original sequence data;

FIG. 2 further elaborates that portion of the process schematized in FIG. 1 for predicting functional regions from genomic sequence;

FIG. 3 illustrates a Mondrian visual display;

FIG. 4 presents a Mondrian showing a hypothetical annotated genomic sequence;

FIG. 5 is a histogram showing the distribution of ORF length and PCR products as obtained, with ORF length shown in black and PCR product length shown in dotted lines;

FIG. 6 is a histogram showing the distribution, among exons predicted according to the methods described, of expression as measured using simultaneous two color

hybridization to a genome-derived single exon microarray. The graph shows the number of sequence-verified products that were either not expressed ("0"), expressed in one or more but not all tested tissues ("1" - "9"), or expressed
5 in all tissues tested ("10");

FIG. 7 is a pictorial representation of the expression of verified sequences that showed expression with signal intensity greater than 3 in at least one tissue, with: FIG. 7A showing the expression as measured by
10 microarray hybridization in each of the 10 measured tissues, and the expression as measured "bioinformatically" by query of EST, NR and SwissProt databases; with FIG. 7B showing the legend for display of physical expression (ratio) in FIG. 7A; and with FIG. 7C showing the legend for
15 scoring EST hits as depicted in FIG. 7A;

FIG. 8 shows a comparison of normalized CY3 signal intensity for arrayed sequences that were identical to sequences in existing EST, NR and SwissProt databases or that were dissimilar (unknown), where black denotes the
20 signal intensity for all sequence-verified products with a BLAST Expect ("E") value of greater than $1e-30$ (1×10^{-30}) ("unknown") and a dotted line denotes sequence-verified spots with a BLAST expect ("E") value of less than $1e-30$ (1×10^{-30}) ("known");

25 FIG. 9 presents a Mondrian of BAC AC008172 (bases 25,000 to 130,000), containing the carbamyl phosphate synthetase gene (AF154830.1); and

FIG. 10 is a Mondrian of BAC A049839.

30

Methods and Apparatus for Predicting, Confirming,
Annotating, and Displaying Functional Regions From Genomic
Sequence Data

35 FIG. 1 is a flow chart illustrating in broad

outline a process for predicting functional regions from genomic sequence, confirming and characterizing the functional activity of such regions experimentally, and then associating and displaying the information so obtained
5 in meaningful and useful relationship to the original sequence data.

The initial input into process 10 of the present invention is drawn from one or more databases 100 containing genomic sequence data. Because genomic sequence
10 is usually obtained from subgenomic fragments, the sequence data typically will be stored in a series of records corresponding to these subgenomic sequenced fragments. Some fragments will have been catenated to form larger contiguous sequences ("contigs"); others will not. A
15 finite percentage of sequence data in the database will typically be erroneous, consisting *inter alia* of vector sequence, sequence created from aberrant cloning events, sequence of artificial polylinkers, and sequence that was erroneously read.

20 Each sequence record in database 100 will minimally contain as annotation a unique sequence identifier (accession number), and will typically be annotated further to identify the date of accession, species of origin, and depositor. Because database 100 can
25 contain nongenomic sequence, each sequence will typically be annotated further to permit query for genomic sequence. Chromosomal origin, optionally with map location, can also be present. Data can be, and over time increasingly will be, further annotated with additional information, in part
30 through use of the present invention, as described below. Annotation can be present within the data records, in information external to database 100 and linked to the records thereto, or through a combination of the two.

Databases useful as genomic sequence database 100
35 in the present invention include GenBank, and particularly

include several divisions thereof, including the
htgs(draft), NT (nucleotide, command line), and NR
(nonredundant) divisions. GenBank is produced by the
National Institutes of Health and is maintained by the
5 National Center for Biotechnology Information (NCBI).
Databases of genomic sequence from species other than
human, such as mouse, rat, Arabidopsis, *C. elegans*, *C.*
briggsii, *Drosophila*, zebra fish, and other higher
eukaryotic organisms will also prove useful as genomic
10 sequence database 100.

Genomic sequence obtained by query of genomic
sequence database 100 is then input into one or more
processes 200 for identification of regions therein that
are predicted to have a biological function as specified by
15 the user. Such functions include, but are not limited to,
encoding protein, regulating transcription, regulating
message transport after transcription into mRNA, regulating
message splicing after transcription into mRNA, of
regulating message degradation after transcription into
20 mRNA, and the like. Other functions include directing
somatic recombination events, contributing to chromosomal
stability or movement, contributing to allelic exclusion or
X chromosome inactivation, and the like.

The particular genomic sequence to be input into
25 process 200 will depend upon the function for which
relevant sequence is to be identified as well as upon the
approach chosen for such identification. Process step 200
can be iterated to identify different functions within a
given genomic region. In such case, the input often will
30 be different for the several iterations.

Sequences predicted to have the requisite
function by process 200 are then input into process 300,
where a subset of the input sequences suitable for
experimental confirmation is identified. Experimental
35 confirmation can involve physical and/or bioinformatic

assay. Where the subsequent experimental assay is bioinformatic, rather than physical, there are fewer constraints on the sequences that can be tested, and in this latter case therefore process 300 can output the
5 entirety of the input sequence.

The subset of sequences output from process 300 is then used in process 400 for experimental verification and characterization of the function predicted in process 200, which experimental verification can, and often
10 will, include both physical and bioinformatic assay.

Process 500 annotates the sequence data with the functional information obtained in the physical and/or bioinformatic assays of process 400. Such annotation can be done using any technique that usefully relates the
15 functional information to the sequence, as, for example, by incorporating the functional data into the sequence data record itself, by linking records in a hierarchical or relational database, by linking to external databases, by a combination thereof, or by other means well known within
20 the database arts. The data can even be submitted for incorporation into databases maintained by others, such as GenBank, which is maintained by NCBI.

As further noted in FIG. 1, additional annotation can be input into process 500 from external sources 600.
25

The annotated data is then displayed in process 800, either before, concomitantly with, or after optional storage 700 on nontransient media, such as magnetic disk, optical disc, magnetooptical disk, flash memory, or the like.

FIG. 1 shows that the experimental data output from process 400 can be used in each preceding step of process 10: e.g., facilitating identification of functional sequences in process 200, facilitating identification of an experimentally suitable subset thereof in process 300, and
35 facilitating creation of physical and/or informational

substrates for, and performance of subsequent assay, of functional sequences in process 400.

Information from each step can be passed directly to the succeeding process, or stored in permanent or interim form prior to passage to the succeeding process. Often, data will be stored after each, or at least a plurality, of such process steps. Any or all process steps can be automated.

FIG. 2 further elaborates the prediction of functional sequence within genomic sequence according to process 200.

Genomic sequence database 100 is first queried for genomic sequence.

The sequence required to be returned by query will depend, in the first instance, upon the function to be identified.

For example, genomic sequences that function to encode protein can be identified *inter alia* using gene prediction approaches, comparative sequence analysis approaches, or combinations of the two. In gene prediction analysis, sequence from one genome is input into process 200 where at least one, preferably a plurality, of algorithmic methods are applied to identify putative coding regions. In comparative sequence analysis, by contrast, corresponding, e.g., syntenic, sequence from a plurality of sources, typically a plurality of species, is input into process 200, where at least one, possibly a plurality, of algorithmic methods are applied to compare the sequences and identify regions of least variability.

The exact content of query 20 will also depend upon the database queried. For example, if the database contains both genomic and nongenomic sequence, perhaps derived from multiple species, and the function to be determined is protein coding regions in human genomic sequence, the query will accordingly require that the

sequence returned be genomic and derived from humans.

Query 20 can also incorporate criteria that compel return of sequence that meets operative requirements of the subsequent analytical method. Alternatively, or in addition, such operative criteria can be enforced in subsequent preprocess step 24.

For example, if the function sought to be identified is protein coding, query 20 can incorporate criteria that return from genomic sequence database 100 only those sequences present within contigs sufficiently long as to have obviated substantial fragmentation of any given exon among a plurality of separate sequence fragments.

Such criteria can, for example, consist of a required minimal individual genomic sequence fragment length, such as 10 kb, more typically 20 kb, 30 kb, 40kb, and preferably 50 kb or more, as well as an optional further or alternative requirement that sequence from any given clone, such as a bacterial artificial chromosome ("BAC"), be presented in no more than a finite maximal number of fragments, such as no more than 20 separate pieces, more typically no more than 15 fragments, even more typically no more than about 10 - 12 fragments.

Results using the present invention have shown that genomic sequence from bacterial artificial chromosomes (BACs) is sufficient for gene prediction analysis according to the present invention if the sequence is at least 50 kb in length, and if additionally the sequence from any given BAC is presented in fewer than 15, and preferably fewer than 10, fragments. Accordingly, query 20 can incorporate a requirement that data accessioned from BAC sequencing be in fewer than 15, preferably fewer than 10, fragments.

An additional criterion that can be incorporated into the query can be the date, or range of dates, of sequence accession. Although the process has been

described above as if genomic sequence database 100 were static, it is of course understood that the genomic sequence databases need not be static, and indeed are typically updated on a frequent, even hourly, basis. Thus, 5 as further described in Examples 1 and 2, *infra*, it is possible to query the database for newly added sequence, either newly added after an absolute date, or newly added relative to a prior analysis performed using the methods and apparatus of the present invention. In this way, the 10 process herein described can incorporate a dynamic, temporal component.

One utility of such temporal limitation is to identify, from newly accessioned genomic sequence, the presence of novel genes, particularly those not previously 15 identified by EST sequencing (or other sequencing efforts that are similarly based upon gene expression). As further described in Example 1, such an approach has shown that newly accessioned human genomic sequence, when analyzed for sequences that function to encode protein, readily 20 identifies genes that are novel over those in existing EST and other expression databases. This makes the methods of the present invention extremely powerful gene discovery tools. And as would be appreciated, such gene discovery can be performed using genomic sequence from species other 25 than human.

If query 20 incorporates multiple criteria, such as above-described, the multiple criteria can be performed as a series of separate queries or as a single query, depending in part upon the query language, the complexity 30 of the query, and other considerations well known in the database arts.

If query 20 returns no genomic sequence meeting the query criteria, the negative result can be reported by process 22, and process 200 (and indeed, entire process 10) 35 ended 23, as shown. Alternatively, or in addition to

report and termination of the initial inquiry, a new query
20 can be generated that takes into account the initial
negative result.

When query 20 returns sequence meeting the query
5 criteria, the returned sequence is then passed to optional
preprocessing 24, suitable and specific for the desired
analytical approach and the particular analytical methods
thereof to be used in process 25.

Preprocessing 24 can include processes suitable
10 for many approaches and methods thereof, as well as
processes specifically suited for the intended subsequent
analysis.

Preprocessing 24 suitable for most approaches and
methods will include elimination of sequence irrelevant to,
15 or that would interfere with, the subsequent analysis.
Such sequence includes repetitive sequence, such as Alu
repeats and LINE elements, vector sequence, artificial
sequence, such as artificial polylinkers, and the like.
Such removal can readily be performed by identification and
20 subsequent masking of the undesired sequence.

Identification can be effected by comparing the
genomic sequence returned by query 20 with public or
private databases containing known repetitive sequence,
vector sequence, artificial sequence, and other artifactual
25 sequence. Such comparison can readily be done using
programs well known in the art, such as CROSS_MATCH, or by
proprietary sequence comparison programs the engineering of
which is well within the skill in the art.

Alternatively, or in addition, undesirable,
30 including artifactual, sequence can be identified
algorithmically without comparison to external databases
and thereafter removed. For example, synthetic polylinker
sequence can be identified by an algorithm that identifies
a significantly higher than average density of known
35 restriction sites. As another example, vector sequence can

be identified by algorithms that identify nucleotide or codon usage at variance with that of the bulk of the genomic sequence.

Once identified, undesired sequence can be removed. Removal can usefully be done by masking the undesired sequence as, for example, by converting the specific nucleotide references to one that is unrecognized by the subsequent bioinformatic algorithms, such as "X". Alternatively, but at present less preferred, the undesired sequence can be excised from the returned genomic sequence, leaving gaps.

Preprocessing 24 can further include selection from among duplicative sequences of that one sequence of highest quality. Higher quality can be measured as a lower percentage of, fewest number of, or least densely clustered occurrence of ambiguous nucleotides, defined as those nucleotides that are identified in the genomic sequence using symbols indicating ambiguity. Higher quality can also or alternatively be valued by presence in the longest contig.

Preprocessing 24 can, and often will, also include formatting of the data as specifically appropriate for passage to the analytical algorithms of process 25. Such formatting can and typically will include, *inter alia*, addition of a unique sequence identifier, either derived from the original accession number in genomic sequence database 100, or newly applied, and can further include additional annotation. Formatting can include conversion from one to another sequence listing standard, such as conversion to or from FASTA or the like, depending upon the input expected by the subsequent process.

Preprocessing, which can be optional depending upon the function desired to be identified and the informational requirements of the methods for effecting such identification, is followed by sequence processing 25,

where sequences with the desired function are identified within the genomic sequence.

As mentioned above, such functions can include, but are not limited to, encoding protein, regulating transcription, regulating message transport after
5 transcription into mRNA, regulating message splicing after transcription, of regulating message degradation, and the like. Other functions include directing somatic recombination events, contributing to chromosomal stability
10 or movement, contributing to allelic exclusion or X chromosome inactivation, or the like.

The methods of the present invention are particularly useful for gene discovery, that is, for identifying, from genomic sequence, regions that function
15 to encode genes, and in a particularly useful embodiment, for identifying regions that function to encode genes not hitherto identified by expression-based or directed cloning and sequencing. In conjunction with verification using the novel single exon microarrays of the present invention, as
20 further described below, the methods herein described become powerful gene discovery tools.

Accordingly, in a preferred embodiment of the present invention, process 25 is used to identify putative coding regions. Two preferred approaches in process 25 for
25 identifying sequence that encodes putative genes are gene prediction and comparative sequence analysis.

Gene prediction can be performed using any of a number of algorithmic methods, embodied in one or more software programs, that identify open reading frames (ORFs)
30 using a variety of heuristics, such as GRAIL, DICTION, and GENEFINDER. Comparative sequence analysis similarly can be performed using any of a variety of known programs that identify regions with lower sequence variability.

As further described in Example 1, below, gene
35 finding software programs yield a range of results. For

the newly accessioned human genomic sequence input in Example 1, for example, GRAIL identified the greatest percentage of genomic sequence as putative coding region, 2% of the data analyzed; GENEFINDER was second, calling 1%;
5 and DICTION yielded the least putative coding region, with 0.8% of genomic sequence called as coding region.

Increased reliability can be obtained when consensus is required among several such methods. Although discussed herein particularly with respect to exon calling,
10 consensus among methods will in general increase reliability of predicting other functions as well.

Thus, as indicated by query 26, sequence processing 25, optionally with preprocessing 24, can be repeated with a different method, with consensus among such
15 iterations determined and reported in process 27.

Process 27 compares the several outputs for a given input genomic sequence and identifies consensus among the separately reported results. The consensus itself, as well as the sequence meeting that consensus, is then stored
20 in process 29a, displayed in process 29b, and/or output to process 300 for subsequent identification of a subset thereof suitable for assay.

Multiple levels of consensus can be calculated and reported by process 27. For example, as further
25 described in Example 1, *infra*, process 27 can report consensus as between all specific pairs of methods of gene prediction, as consensus among any one or more of the pairs of methods of gene prediction, or as among all of the gene prediction algorithms used. Thus, in Example 1, process 27
30 reported that GRAIL and GENEFINDER programs agreed on 0.7% of genomic sequence, that GRAIL and DICTION agreed on 0.5% of genomic sequence, and that the three programs together agreed on 0.25% of the data analyzed. Put another way, 0.25% of the genomic sequence was identified by all three
35 of the programs as containing putative coding region.

Furthermore, consensus can be required among different approaches to identifying a chosen function.

For example, if the function desired to be identified is coding of protein sequence, and a first used approach to exon calling is gene prediction, the process can be repeated on the same input sequence, or subset thereof, with another approach, such as comparative sequence analysis. In such a case, where comparative sequence analysis follows gene prediction, the comparison can be performed not only on genomic nucleic acid sequence, but additionally or alternatively can be performed on the predicted amino acid sequence translated from the ORFs prior identified by the gene prediction approach.

Although shown as an iterative process, the multiple analyses required to achieve consensus can be done in series, in parallel, or some combination thereof.

Predicted functional sequence, optionally representing a consensus among a plurality of methods and approaches for determination thereof, is passed to process 300 for identification of a subset thereof for functional assay.

In the preferred embodiment of the methods of the present invention, wherein the function sought to be identified is protein coding, process 300 is used to identify a subset thereof suitable for experimental verification by physical and/or bioinformatic approaches.

For example, putative ORFs identified in process 200 can be classified, or binned, bioinformatically into putative genes. This binning can be based *inter alia* upon consideration of the average number of exons/gene in the species chosen for analysis, upon density of exons that have been called on the genomic sequence, and other empirical rules. Thereafter, one or more among the gene-specific ORFs can be chosen for subsequent use in gene expression assay.

Where such subsequent gene expression assay uses amplified nucleic acid, considerations such as desired amplicon length, primer synthesis requirements, putative exon length, sequence GC content, existence of possible
5 secondary structure, and the like can be used to identify and select those ORFs that appear most likely successfully to amplify. Where subsequent gene expression assay relies upon nucleic acid hybridization, whether or not using amplified product, further considerations involving
10 hybridization stringency can be applied to identify that subset of sequences that will most readily permit sequence-specific discrimination at a chosen hybridization and wash stringency. One particular such consideration is avoidance of putative exons that span repetitive sequence; such
15 sequence can hybridize spuriously to nonspecific message, reducing specific signal in the hybridization.

For bioinformatic assay, there are fewer constraints on the sequences that can be tested experimentally, and in this latter case therefore process
20 300 can output the entirety of the input sequence.

The subset of sequences identified by process 300 as suitable for use in assay is then used in process 400 to create the physical and/or informational substrate for experimental verification of the predictions made in
25 process 200, and thereafter to assay those substrates.

As mentioned, the methods of the present invention are particularly useful for identifying potential coding regions within genomic sequence. In a preferred embodiment of process 400, therefore, the expression of the
30 sequences predicted to encode protein is verified. The combination of the predictive and experimental methods provides a powerful gene discovery engine.

Thus, in another aspect, the present invention provides methods and apparatus for verifying the expression
35 of putative genes identified within genomic sequence. In

particular, the invention provides a novel method of verifying gene expression in which expression of predicted ORFs is measured and confirmed using a novel type of nucleic acid microarray, the genome-derived single exon
5 nucleic acid microarrays of the present invention.

Putative ORFs as predicted by a consensus of gene calling, particularly gene prediction, algorithms in process 200, and as further identified as suitable by process 300, are amplified from genomic DNA using the
10 polymerase chain reaction (PCR). Although PCR is conveniently used, other amplification approaches can also be used.

Amplification schemes can be designed to capture the entirety of each predicted ORF in an amplicon with
15 minimal additional (that is, intronic or intergenic) sequence. Because ORFs predicted from human genomic sequence using the methods of the present invention differ in length, such an approach results in amplicons of varying length.

20 However, most predicted ORFs are shorter than 500 bp in length, and although amplicons of at least about 100 or 200 base pairs can be immobilized as probes on nucleic acid microarrays, early experimental results using the methods of the present invention have suggested that longer
25 amplicons, at least about 400 or 500 base pairs, are more effective. Furthermore, certain advantages derive from application to the microarray of amplicons of defined size.

Therefore, amplification schemes can alternatively, and preferably, be designed to amplify
30 regions of defined size, preferably at least about 300, 400 or 500 bp, centered about each predicted ORF. Such an approach results in a population of amplicons of limited size diversity, but that typically contain intronic and/or intergenic nucleic acid in addition to putative ORF.

35 Conversely, somewhat fewer than 10% of ORFs

predicted from human genomic sequence according to the methods of the present invention exceed 500 bp in length. Portions of such extended ORFs, preferably at least about 300,400 or 500 bp in length, can be amplified. However, it
5 has been discovered that the percentage success at amplifying pieces of such ORFs is low, and that such putative exons are more effectively amplified when larger fragments, at least about 1000 or 1500 bp, and even as large as 2000 bp are amplified.

10 The putative ORFs selected in process 300 are thus input into one or more primer design programs, such as PRIMER3 (available online for use at <http://www-genome.wi.mit.edu/cgi-bin/primer/>), with a goal of amplifying at least about 500 base pairs of genomic
15 sequence centered within or about ORFs predicted to be no more than about 500 bp, or at least about 1000 - 1500 bp of genomic sequence for ORFs predicted to exceed 500 bp in length, and the primers synthesized by standard techniques. Primers with the requisite sequences can be purchased
20 commercially or synthesized by standard techniques.

Conveniently, a first predetermined sequence can be added commonly to the ORF-specific 5' primer and a second, typically different, predetermined sequence commonly added to each 3' ORF-unique primer. This serves
25 to immortalize the amplicon, that is, serves to permit further amplification of any amplicon using a single set of primers complementary respectively to the common 5' and common 3' sequence elements. The presence of these "universal" priming sequences further facilitates later
30 sequence verification, providing a sequence common to all amplicons at which to prime sequencing reactions. The common 5' and 3' sequences further serve to add a cloning site should any of the ORFs warrant further study.

Such predetermined sequence is usefully at least
35 about 10, 12 or 15 nt in length, and usually does not

exceed about 25 nt in length. The "universal" priming sequences used in the examples presented *infra* were each 16 nt long.

The genomic DNA to be used as substrate for
5 amplification will come from the eukaryotic species from which the genomic sequence data had originally been obtained, or a closely related species, and can conveniently be prepared by well known techniques from somatic or germline tissue or cultured cells of the
10 organism. See, e.g., Short Protocols in Molecular Biology : A Compendium of Methods from Current Protocols in Molecular Biology, Ausubel et al. (eds.), 4th edition (April 1999), John Wiley & Sons (ISBN: 047132938X) and Maniatis et al., Molecular Cloning : A Laboratory Manual,
15 2nd edition (December 1989), Cold Spring Harbor Laboratory Press (ISBN: 0879693096). Many such prepared genomic DNAs are available commercially, with the human genomic DNAs additionally having certification of donor informed consent.

20 Although the intronic and intergenic material flanking putative coding regions in the amplicons could potentially interfere with hybridizations during microarray experiments, we have found, surprisingly, that differential expression ratios are not significantly affected. Rather,
25 the predominant effect of exon size is to alter the absolute signal intensity, rather than its ratio. Equally surprising, the art had suggested that single exon probes would not provide sufficient signal intensity for high stringency hybridization analyses; we find that such probes
30 not only provide adequate signal, but have substantial advantages, as herein described.

After partial purification, as by size exclusion spin column, with or without confirmation as to amplicon quality as by gel electrophoresis, each amplicon (single
35 exon probe) is disposed in an array upon a support

substrate.

Methods for creating microarrays by deposition and fixation of nucleic acids onto support substrates are well known in the art (Reviewed by Schena et al., see
5 above).

Typically, the support substrate will be glass, although other materials, such as amorphous or crystalline silicon or plastics. Such plastics include
10 polymethylacrylic, polyethylene, polypropylene, polyacrylate, polymethylmethacrylate, polyvinylchloride, polytetrafluoroethylene, polystyrene, polycarbonate, polyacetal, polysulfone, celluloseacetate, cellulosenitrate, nitrocellulose, or mixtures thereof, can
15 also be used. Typically, the support will be rectangular, although other shapes, particularly circular disks and even spheres, present certain advantages. Particularly advantageous alternatives to glass slides as support
substrates for array of nucleic acids are optical discs, as described in WO 98/12559.

20 The amplified nucleic acids can be attached covalently to a surface of the support substrate or, more typically, applied to a derivatized surface in a chaotropic agent that facilitates denaturation and adherence by
presumed noncovalent interactions, or some combination
25 thereof.

Robotic spotting devices useful for arraying nucleic acids on support substrates can be constructed using public domain specifications (The MGuide, version 2.0, <http://cmgm.stanford.edu/pbrown/mguide/index.html>), or
30 can conveniently be purchased from commercial sources (MicroArray GenII Spotter and MicroArray GenIII Spotter, Molecular Dynamics, Inc., Sunnyvale, CA). Spotting can also be effected by printing methods, including those using ink jet technology.

35 As is well known in the art, microarrays

typically also contain immobilized control nucleic acids. For controls useful in providing measurements of background signal for the genome-derived single exon microarrays of the present invention, a plurality of *E. coli* genes can
5 readily be used. As further described in Example 1, 16 or 32 *E. coli* genes suffice to provide a robust measure of background noise in such microarrays.

As is well known in the art, the amplified product disposed in arrays on a support substrate to create
10 a nucleic acid microarray can consist entirely of natural nucleotides linked by phosphodiester bonds, or alternatively can include either nonnative nucleotides, alternative internucleotide linkages, or both, so long as complementary binding can be obtained in the hybridization.
15 If enzymatic amplification is used to produce the immobilized probes, the amplifying enzyme will impose certain further constraints upon the types of nucleic acid analogs that can be generated.

Although particularly described herein as using
20 high density microarrays constructed on planar substrates, the methods of the present invention for confirming the expression of ORFs predicted from genomic sequence can use any of the known types of microarrays, as herein defined, including lower density planar arrays, and microarrays on
25 nonplanar, nonunitary, distributed substrates.

For example, gene expression can be confirmed using hybridization to lower density arrays, such as those constructed on membranes, such as nitrocellulose, nylon, and positively-charged derivatized nylon membranes.
30 Further, gene expression can also be confirmed using nonplanar, bead-based microarrays such as are described in Brenner et al., *Proc. Natl. Acad. Sci. USA* 97(4):166501670 (2000); U.S. Patent No. 6,057,107; and U.S. Patent No. 5,736,330. In theory, a packed collection of such beads
35 provides in aggregate a higher density of nucleic acid

probe than can be achieved with spotting or lithography techniques on a single planar substrate.

Planar microarrays on solid substrates, however, provide certain useful advantages, including high
5 throughput and compatibility with existing readers. For example, each standard microscope slide can include at least 1000, typically at least 2000, preferably 5000 and upto 10,000 - 50,000 or more nucleic acid probes of discrete sequence. The number of sequences deposited will
10 depend on their required application.

Each putative gene can be represented in the array by a single predicted ORF. Alternatively, genes can be represented by more than one predicted ORF. For purposes of measuring differential splicing, more than one
15 predicted ORF will be provided for a putative gene. And as is well known in the art, each probe of defined sequence, representing a single predicted ORF, can be deposited in a plurality of locations on a single microarray to provide redundancy of signal.

20 The genome-derived single exon microarrays described above differ in several fundamental and advantageous ways from microarrays presently used in the gene expression art, including (1) those created by deposition of mRNA-derived nucleic acids, (2) those created
25 by *in situ* synthesis of oligonucleotide probes, and (3) those constructed from yeast genomic DNA.

Most nucleic acid microarrays that are in use for study of eukaryotic gene expression have as immobilized probes nucleic acids that are derived - either directly or
30 indirectly - from expressed message. As discussed above, it is common, for example, for such microarrays to be derived from cDNA/EST libraries, either from those previously described in the literature, see Lennon et al., or from the *de novo* construction of "problem specific"
35 libraries targeted at a particular biological question,

R.S. Thomas *et al.*, *Cancer Res.* (in press). Such microarrays are herein collectively denominated "EST microarrays".

Such EST microarrays by definition can measure
5 expression only of those genes found in EST libraries, shown herein to represent only a fraction of expressed genes. Furthermore, such libraries - and thus microarrays based thereupon - are biased by the tissue or cell type of message origin, by the expression levels of the respective
10 genes within the tissues, and by the ability of the message successfully to have been reverse-transcribed and cloned.

Thus, as further discussed in Example 1, the methods of the present invention enable sequences that do not appear in EST or other expression databases to be
15 determined - subsequently arrayed for expression measurements could not, therefore, have been represented as probes on an EST microarray. And as further demonstrated in the examples, *infra*, the remaining population of genes identified from genomic sequence by the methods of the
20 present invention - that is, the one third of sequences that had previously been accessioned in EST or other expression databases - are biased toward genes with higher expression levels.

Representation of a message in an EST and/or cDNA
25 library depends upon the successful reverse transcription, optionally but typically with subsequent successful cloning, of the message. This introduces substantial bias into the population of probes available for arraying in EST microarrays.

30 In contrast, neither reverse transcription nor cloning is required to produce the probes arrayed on the genome-derived single exon microarrays of the present invention. And although the ultimate deposition of a probe on the genome-derived single exon microarray of the present
35 invention depends upon a successful amplification from

genomic material, *a priori* knowledge of the sequence of the desired amplicon affords greater opportunity to recover any given probe sequence recalcitrant to amplification than is afforded by the requirement for successful reverse
5 transcription and cloning of unknown message in EST approaches.

Thus, the genome-derived single exon microarrays of the present invention present a far greater diversity of probes for measuring gene expression, with far less bias,
10 than do EST microarrays presently used in the art.

As a further consequence of their ultimate origin from expressed message, the probes in EST microarrays often contain poly-A (or complementary poly-T) stretches derived from the poly-A tail of mature mRNA. These homopolymeric
15 stretches contribute to cross-hybridization, that is, to a spurious signal occasioned by hybridization to the homopolymeric tail of a labeled cDNA that lacks sequence homology to the gene-specific portion of the probe.

In contrast, the probes arrayed in the genome-derived single exon microarrays of the present invention
20 lack homopolymeric stretches derived from message polyadenylation, and thus can provide more specific signal. Typically, at least about 50, 60 or 75% of the probes on the genome-derived single exon microarrays of the present
25 invention lack homopolymeric regions consisting of A or T, where a homopolymeric region is defined for purposes herein as stretches of 25 or more, typically 30 or more, identical nucleotides.

A further distinction, which also affects the
30 specificity of hybridization, is occasioned by the typical derivation of EST microarray probes from cloned material. Because much of the probe material disposed as probes on EST microarrays is excised or amplified from plasmid, phage, or phagemid vectors, EST microarrays typically
35 include a fair amount of vector sequence, more so when the

probes are amplified, rather than excised, from the vector.

In contrast, the vast majority of probes in the genome-derived single exon microarrays of the present invention contain no prokaryotic or bacteriophage vector sequence, having been amplified directly or indirectly from genomic DNA. Typically, therefore, at least about 50, 60, 70 or 80% or more of individual exon-including probes disposed on a genome-derived single exon microarray of the present invention lack vector sequence, and particularly lack sequences drawn from plasmids and bacteriophage. Preferably, at least about 85, 90 or more than 90% of exon-including probes in the genome-derived single exon microarray of the present invention lack vector sequence. With attention to removal of vector sequences through preprocessing 24, percentages of vector-free exon-including probes can be as high as 95 - 99%. The substantial absence of vector sequence from the genome-derived single exon microarrays of the present invention results in greater specificity during hybridization, since spurious cross-hybridization to a probe vector sequence is reduced.

As a further consequence of excision or amplification of probes from vectors in construction of EST microarrays, the probes arrayed thereon often contain artificial sequence, derived from vector polylinker multiple cloning sites, at both 5' and 3' ends. The probes disposed upon the genome-derived single exon microarrays need have no such artificial sequence appended thereto.

As mentioned above, however, the ORF-specific primers used to amplify putative ORFs can include artificial sequences, typically 5' to the ORF-specific primer sequence, useful for "universal" (that is, independent of ORF sequence) priming of subsequent amplification or sequencing reactions. When such "universal" 5' and/or 3' priming sequences are appended to the amplification primers, the probes disposed upon the

genome-derived single exon microarray will include artificial sequence similar to that found in EST microarrays. However, the genome-derived single exon microarray of the present invention can be made without such sequences, and if so constructed, presents an even smaller amount of nonspecific sequence that would contribute to nonspecific hybridization.

Yet another consequence of typical use of cloned material as probes in EST microarrays is that such microarrays contain probes that result from cloning artifacts, such as chimeric molecules containing coding region of two separate genes. Derived from genomic material, typically not thereafter cloned, the probes of the genome-derived single exon microarrays of the present invention lack such cloning artifacts, and thus provide greater specificity of signal in gene expression measurements.

A further consequence of the cloned origin of probes on many EST microarrays is that the individual probes often have disparate sizes, which can cause the optimal hybridization stringency to vary among probes on a single microarray. In contrast, as discussed above, the probes arrayed on the genome-derived single exon microarrays of the present invention can readily be designed to have a narrow distribution in sizes, with the range of probe sizes no greater than about 10% of the average size, typically no greater than about 5% of the average probe size.

Because of their origin from fully- or partially-spliced message, probes disposed upon EST arrays will often include multiple exons. The percentage of such exon-spanning probes in an EST microarray can be calculated, on average, based upon the predicted number of exons/gene for the given species and the average length of the immobilized probes. For human genes, the near-complete sequence of

human chromosome 22, Dunham et al., *Nature* 402(6761):489-95 (1999), predicts that human genes average 5.5 exons/gene. Even with probes of 200 - 500 bp, the vast majority of human EST microarray probes include more than one exon.

5 In contrast, by virtue of their origin from algorithmically identified ORFs in genomic sequence, the probes in the genome-derived single exon microarrays of the present invention can consist of individual exons. Thus, in contrast to EST microarrays, at least about 50, 60, 70,
10 75, 80, 85, 95 or 99% of probes deposited in the genome-derived microarray of the present invention consist of, or include, no more than one predicted ORF.

This provides the ability, not readily achieved using EST microarrays, to use the genome-derived single
15 exon microarrays of the present invention to measure tissue-specific expression of individual exons, which in turn allows differential splicing events to be detected and characterized, and in particular, allows the correlation of differential splicing to tissue-specific expression
20 patterns.

Furthermore, the exons that are represented in EST microarrays are often biased toward the 3' or 5' end of their respective genes, since sequencing strategies used for EST identification are so biased. In contrast, no such
25 3' or 5' bias necessarily inheres in the selection of exons for disposition on the genome-derived single exon microarrays of the present invention.

Conversely, the probes provided on the genome-derived single exon microarrays of the present invention
30 typically, but need not necessarily, include intronic and/or intergenic sequence that is absent from EST microarrays, which are derived from mature mRNA. Typically, at least about 50, 60, 70, 80 or 90% of the exon-including probes on the genome-derived single exon
35 microarrays of the present invention include sequence drawn

from noncoding regions. As discussed above, the additional presence of noncoding region does not significantly interfere with measurement of gene expression, and provides the additional opportunity to assay prespliced RNA, and thus measure such phenomena such as nuclear export control.

The genome-derived single exon microarrays of the present invention are also quite different from *in situ* synthesis microarrays, where probe size is severely constrained by inadequacies in the photolithographic synthesis process.

Typically, probes arrayed on *in situ* synthesis microarrays are limited to a maximum of about 25 bp. As a well known consequence, hybridization to such chips must be performed at low stringency. In order, therefore, to achieve unambiguous sequence-specific hybridization results, the *in situ* synthesis microarray requires substantial redundancy, with concomitant programmed arraying for each probe of probe analogues with altered (i.e., mismatched) sequence.

In contrast, the longer probe length of the genome-derived single exon microarrays of the present invention allows much higher stringency hybridization and wash. Typically, therefore, exon-including probes on the genome-derived single exon microarrays of the present invention average at least about 100, 200, 300, 400 or 500 bp in length. By obviating the need for substantial probe redundancy, this approach permits a higher density of probes for discrete exons or genes to be arrayed on the microarrays of the present invention than can be achieved for *in situ* synthesis microarrays.

A further distinction is that the probes in *in situ* synthesis microarrays typically are covalently linked to the substrate surface. In contrast, the probes disposed on the genome-derived microarray of the present invention typically are, but need not necessarily be, bound

noncovalently to the substrate.

Furthermore, the short probe size on *in situ* microarrays causes large percentage differences in the melting temperature of probes hybridized to their complementary target sequence, and thus causes large percentage differences in the theoretically optimum stringency across the array as a whole.

In contrast, the larger probe size in the microarrays of the present invention create lower percentage differences in melting temperature across the range of arrayed probes.

A further significant advantage of the microarrays of the present invention over *in situ* synthesized arrays is that the quality of each individual probe can be confirmed before deposition. In contrast, the quality of probes cannot be assessed on a probe-by-probe basis for the *in situ* synthesized microarrays presently being used.

The genome-derived single exon microarrays of the present invention are also distinguished over, and present substantial benefits over, the genome-derived microarrays from lower eukaryotes such as yeast. Lashkari et al., *Proc. Natl. Acad. Sci. USA* 94:13057-13062 (1997).

Only about 220 - 250 of the 6100 or so nuclear genes in *Saccharomyces cerevisiae* - that is, only about 4 - 5% - have standard, spliceosomal, introns, Lopez et al., *Nucl. Acids Res.* 28:85-86 (2000); Spingola et al., *RNA* 5(2):221-34 (1999). Furthermore, the entire yeast genome has already been sequenced. These two facts permit the ready amplification and disposition of single-ORF amplicons on such microarray without the requirement for antecedent use of gene prediction and/or comparative sequence analyses.

Thus, a significant aspect of the present invention is the ability to identify and to confirm

expression of predicted coding regions in genomic sequence drawn from eukaryotic organisms that have a higher percentage of genes having introns than do yeast such as *Saccharomyces cerevisiae*, particularly in genomic sequence
5 drawn from eukaryotes in which at least about 10, 20 or 50% of protein-encoding genes have introns. In preferred embodiments, the methods and apparatus of the present invention are used to identify and confirm expression of novel genes from genomic sequence of eukaryotes in which
10 the average number of introns per gene is at least about one, two or three or more.

After the physical substrate is prepared, experimental verification of predicted function is performed.

15 In a preferred embodiment of the present invention, where the function sought to be identified in genomic sequence is protein coding, experimental verification is performed by measuring expression of the putative ORFs, typically through nucleic acid hybridization
20 experiments, and in particularly preferred embodiments, through hybridization to genome-derived single exon microarrays prepared as above- described.

Expression is conveniently measured and expressed for each probe in the microarray as a ratio of the
25 expression measured concurrently in a plurality of mRNA sources, according to techniques well known in the microarray art, Reviewed in Schena et al., and as further described in Example 2, below. The mRNA source for the reference against which specific expression is measured can
30 be drawn from a homogeneous mRNA source, such as a single cultured cell-type, or alternatively can be heterogeneous, as from a pool of mRNA derived from multiple tissues and/or cell types, as further described in Example 2, *infra*.

mRNA can be prepared by standard techniques, see
35 Ausubel et al. and Maniatis et al., or purchased

commercially. The mRNA is then typically reverse-transcribed in the presence of labeled nucleotides: the index source (that in which expression is desired to be measured) is reverse transcribed in the presence of
5 nucleotides labeled with a first label, typically a fluorophore (fluorochrome; fluor; fluorescent dye); the reference source is reverse transcribed in the presence of a second label, typically a fluorophore, typically fluorometrically-distinguishable from the first label. As
10 further described in Example 2, *infra*, Cy3 and Cy5 dyes prove particularly useful in these methods. After partial purification of the index and reference targets, hybridization to the probe array is conducted according to standard techniques, typically under a coverslip.

15 After wash, microarrays are conveniently scanned using a commercial microarray scanning device, such as a Gen3 Scanner (Molecular Dynamics, Sunnyvale, CA). Data on expression is then passed, with or without interim storage, to process 500, where the results for each probe are
20 related to the original sequence.

Often, hybridization of target material to the genome-derived single exon microarray will identify certain of the probes thereon as of particular interest. Thus, it is often desirable that the user be able readily to obtain
25 sufficient quantities of an individual probe, either for subsequent arrayed deposition upon an additional support substrate, often as part of a microarray having a plurality of probes so identified, or alternatively or additionally as a solitary solid-phase or solution-phase probe, for
30 further use.

Thus, in another aspect, the present invention provides compositions and kits for the ready production of nucleic acids identical in sequence to, or substantially identical in sequence to, probes on the genome-derived
35 single exon microarrays of the present invention.

In this aspect, a small quantity of each probe is disposed, typically without attachment to substrate, in a spatially-addressable ordered set, typically one per well of a microtiter dish. Although a 96 well microtiter plate
5 can be used, greater efficiency is obtained using higher density arrays, such as are provided by microtiter plates having 384, 864, 1536, 3456, 6144, or 9600 wells, and although microtiter plates having physical depressions (wells) are conveniently used, any device that permits
10 addressable withdrawal of reagent from fluidly-noncommunicating areas can be used.

In this aspect of the invention, therefore, a fluidly noncommunicating addressable ordered set of individual probes, corresponding to those on a genome-
15 derived single exon microarray, is provided, with each probe in sufficient quantity to permit amplification, such as by PCR. As earlier mentioned, the ORF-specific 5' primers used for genomic amplification can have a first common sequence added thereto, and the ORF-specific 3'
20 primers used for genomic amplification can have a second, different, common sequence added thereto, thus permitting, in this preferred embodiment, the use of a single set of 5' and 3' primers to amplify any one of the probes from the amplifiable ordered set.

25 Each discrete amplifiable probe can also be packaged with amplification primers, solutes, buffers, etc., and can be provided in dry (e.g., lyophilized) form or wet, in the latter case typically with addition of agents that retard evaporation.

30 In another aspect of the present invention, a genome-derived single-exon microarray is packaged together with such an ordered set of amplifiable probes corresponding to the probes, or one or more subsets of probes, thereon. In alternative embodiments, the ordered
35 set of amplifiable probes is packaged separately from the

genome-derived single exon microarray.

In some embodiments, the microarray and/or ordered probe set are further packaged with recordable media that provide probe identification and addressing information, and that can additionally contain annotation information, such as gene expression data. Such recordable media can be packaged with the microarray, with the ordered probe set, or with both.

If the microarray is constructed on a substrate that incorporates recordable media, such as is described in international patent application no. WO 98/12559, then separate packaging of the genome-derived single exon microarray and the bioinformatic information is not required.

The amount of amplifiable probe material should be sufficient to permit at least one amplification sufficient for subsequent hybridization assay.

Although the use of high density genome-derived microarrays on solid planar substrates is presently a preferred approach for the physical confirmation and characterization of the expression of sequences predicted to encode protein, other types of microarrays (as herein defined) can also be used.

Furthermore, as earlier mentioned, experimental verification of the function predicted from genomic sequence in process 200 can be bioinformatic, rather than, or additional to, physical verification.

For example, where the function desired to be identified is protein coding, the predicted ORFs can be compared bioinformatically to sequences known or suspected of being expressed.

Thus, the sequences output from process 300 (or process 200), can be used to query expression databases, such as EST databases, SNP ("single nucleotide polymorphism") databases, known cDNA and mRNA sequences,

SAGE ("serial analysis of gene expression") databases, and more generalized sequence databases that allow query for expressed sequences. Such query can be done by any sequence query algorithm, such as BLAST ("basic local
5 alignment search tool"). The results of such query - including information on identical sequences and information on nonidentical sequences that have diffuse or focal regions of sequence homology to the query sequence - can then be passed directly to process 500, or used to
10 inform analyses subsequently undertaken in process 200, process 300, or process 400.

Experimental data, whether obtained by physical or bioinformatic assay in process 400, is passed to process 500 where it is usefully related to the sequence data
15 itself, a process colloquially termed "annotation". Such annotation can be done using any technique that usefully relates the functional information to the sequence, as, for example, by incorporating the functional data into the record itself, by linking records in a hierarchical or
20 relational database, by linking to external databases, or by a combination thereof. Such database techniques are well within the skill in the art.

The annotated sequence data can be stored locally, uploaded to genomic sequence database 100, and/or
25 displayed 800.

The methods and apparatus of the present invention rapidly produce functional information from genomic sequence. Coupled with the escalating pace at which sequence now accumulates, the rapid pace of sequence
30 annotation produces a need for methods of displaying the information in meaningful ways.

FIG. 3 shows visual display 80 presenting a single genomic sequence annotated according to the present invention. Because of its nominal resemblance to artistic
35 works of Piet Mondrian, visual display 80 is alternatively

described herein as a "Mondrian".

Each of the visual elements of display 80 is aligned with respect to the genomic sequence being annotated (hereinafter, the "annotated sequence"). Given
5 the number of nucleotides typically represented in an annotated sequence, representation of individual nucleotides would rarely be readable in hard copy output of display 80. Typically, therefore, the annotated sequence is schematized as rectangle 89, extending from the left
10 border of display 80 to its right border. By convention herein, the left border of rectangle 89 represents the first nucleotide of the sequence and the right border of rectangle 89 represents the last nucleotide of the sequence.

15 As further discussed below, however, the Mondrian visual display of annotated sequence can serve as a convenient graphical user interface for computerized representation, analysis, and query of information stored electronically. For such use, the individual nucleotides
20 can conveniently be linked to the X axis coordinate of rectangle 89. This permits the annotated sequence at any point within rectangle 89 readily to be viewed, either automatically - for example, by time-delayed appearance of a small overlaid window upon movement of a cursor or other
25 pointer over rectangle 89 - or through user intervention, as by clicking a mouse or other pointing device at a point in rectangle 89.

Visual display 80 is generated after user specification of the genomic sequence to be displayed.
30 Such specification can consist of or include an accession number for a single clone (e.g., a single BAC accessioned into GenBank), wherein the starting and stopping nucleotides are thus absolutely identified, or alternatively can consist of or include an anchor or
35 fulcrum point about which a chosen range of sequence is

anchored, thus providing relative endpoints for the sequence to be displayed. For example, the user can anchor such a range about a given chromosomal map location, gene name, or even a sequence returned by query for similarity or identity to an input query sequence. When visual display 80 is used as a graphical user interface to computerized data, additional control over the first and last displayed nucleotide will typically be dynamically selectable, as by use of standard zooming and/or selection tools.

Field 81 of visual display 80 is used to present the output from process 200, that is, to present the bioinformatic prediction of those sequences having the desired function within the genomic sequence. Functional sequences are typically indicated by at least one rectangle 83 (83a, 83b, 83c), the left and right borders of which respectively indicate, by their X-axis coordinates, the starting and ending nucleotides of the region predicted to have function.

Where a single bioinformatic method or approach identifies a plurality of regions having the desired function, a plurality of rectangles 83 is disposed horizontally in field 81. Where multiple methods and/or approaches are used to identify function, each such method and/or approach can be represented by its own series of horizontally disposed rectangles 83, each such horizontally disposed series of rectangles offset vertically from those representing the results of the other methods and approaches.

Thus, rectangles 83a in FIG. 3 represent the functional predictions of a first method of a first approach for predicting function, rectangles 83b represent the functional predictions of a second method and/or second approach for predicting that function, and rectangles 83c represent the predictions of a third method and/or

approach.

Where the function desired to be identified is protein coding, field 81 is used to present the bioinformatic prediction of sequences encoding protein.

- 5 For example, rectangles 83a can represent the results from GRAIL or GRAIL II, rectangles 83b can represent the results from GENEFINDER, and rectangles 83c can represent the results from DICTION.

- 10 Optionally, and preferably, rectangles 83 collectively representing predictions of a single method and/or approach are identically colored and/or textured, and are distinguishable from the color and/or texture used for a different method and/or approach.

- Alternatively, or in addition, the color, hue, density, or texture of rectangles 83 can be used further to report a measure of the bioinformatic reliability of the prediction. For example, many gene prediction programs will report a measure of the reliability of prediction. Thus, increasing degrees of such reliability can be indicated, e.g., by increasing density of shading. Where display 80 is used as a graphical user interface, such measures of reliability, and indeed all other results output by the program, can additionally or alternatively be made accessible through linkage from individual rectangles 83, as by time-delayed window ("tool tip" window), or by pointer (e.g., mouse)-activated link.
- 15
20
25

- As earlier described, increased predictive reliability can be achieved by requiring consensus among methods and/or approaches to determining function. Thus, field 81 can include a horizontal series of rectangles 83 that indicate one or more degrees of consensus in predictions of function.
- 30

- Although FIG. 3 shows three series of horizontally disposed rectangles in field 81, display 80 can include as few as one such series of rectangles and as
- 35

many as can discriminably be displayed, depending upon the number of methods and/or approaches used to predict a given function.

Furthermore, field 81 can be used to show
5 predictions of a plurality of different functions.
However, the increased visual complexity occasioned by such display makes more useful the ability of the user to select a single function for display. When display 80 is used as a graphical user interface for computer query and analysis,
10 such function can usefully be indicated and user-selectable, as by a series of graphical buttons or tabs (not shown in FIG. 3).

Rectangle 89 is shown in FIG. 3 as including interposed rectangle 84. Rectangle 84 represents the
15 portion of annotated sequence for which predicted functional information has been assayed physically, with the starting and ending nucleotides of the assayed material indicated by the X axis coordinates of the left and right borders of rectangle 84. Rectangle 85, with optional
20 inclusive circles 86 (86a, 86b, and 86c) displays the results of such physical assay.

Although a single rectangle 84 is shown in FIG. 3, physical assay is not limited to just one region of annotated genomic sequence. It is expected that an
25 increasing percentage of regions predicted to have function by process 200 will be assayed physically, and that display 80 will accordingly, for any given genomic sequence, have an increasing number of rectangles 84 and 85, representing an increased density of sequence annotation.

30 Where the function desired to be identified is protein coding, rectangle 84 identifies the sequence of the probe used to measure expression. In embodiments of the present invention where expression is measured using genome-derived single exon microarrays, rectangle 84
35 identifies the sequence included within the probe

immobilized on the support surface of the microarray. As noted *supra*, such probe will often include a small amount of additional, synthetic, material incorporated during amplification and designed to permit reamplification of the probe, which sequence is typically not shown in display 80.

Rectangle 87 is used to present the results of bioinformatic assay of the genomic sequence. For example, where the function desired to be identified is protein coding, process 400 can include bioinformatic query of expression databases with the sequences predicted in process 200 to encode exons. And as earlier discussed, because bioinformatic assay presents fewer constraints than does physical assay, often the entire output of process 200 can be used for such assay, without further subsetting thereof by process 300. Therefore, rectangle 87 typically need not have separate indicators therein of regions submitted for bioinformatic assay; that is, rectangle 87 typically need not have regions therein analogous to rectangles 84 within rectangle 89.

Rectangle 87 as shown in FIG. 3 includes smaller rectangles 880 and 88. Rectangles 880 indicate regions that returned a positive result in the bioinformatic assay, with rectangles 88 representing regions that did not return such positive results. Where the function desired to be predicted and displayed is protein coding, rectangles 880 indicate regions of the predicted exons that identify sequence with significant similarity in expression databases, such as EST, SNP, SAGE databases, with rectangles 88 indicating genes novel over those identified in existing expression data bases.

Rectangles 880 can further indicate, through color, shading, texture, or the like, additional information obtained from bioinformatic assay.

For example, where the function assayed and displayed is protein coding, the degree of shading of

rectangles 880 can be used to represent the degree of sequence similarity found upon query of expression databases. The number of levels of discrimination can be as few as two (identity, and similarity, where similarity has a user-selectable lower threshold). Alternatively, as many different levels of discrimination can be indicated as can visually be discriminated.

Where display 80 is used as a graphical user interface, rectangles 880 can additionally provide links directly to the sequences identified by the query of expression databases, and/or statistical summaries thereof. As with each of the precedingly-discussed uses of display 80 as a graphical user interface, it should be understood that the information accessed via display 80 need not be resident on the computer presenting such display, which often will be serving as a client, with the linked information resident on one or more remotely located servers.

Rectangle 85 displays the results of physical assay of the sequence delimited by its left and right borders.

Rectangle 85 can consist of a single rectangle, thus indicating a single assay, or alternatively, and increasingly typically, will consist of a series of rectangles (85a, 85b, 85c) indicating separate physical assays of the same sequence.

Where the function assayed is gene expression, and where gene expression is assayed as herein described using simultaneous two-color fluorescent detection of hybridization to genome-derived single exon microarrays, individual rectangles 85 can be colored to indicate the degree of expression relative to control. Conveniently, shades of green can be used to depict expression in the sample over control values, and shades of red used to depict expression less than control, corresponding to the

spectra of the Cy3 and Cy5 dyes conventionally used for respective labeling thereof. Additional functional information can be provided in the form of circles 86 (86a, 86b, 86c), where the diameter of the circle can be used to indicate expression intensity. As discussed *infra*, such relative expression (expression ratios) and absolute expression (signal intensity) can be expressed using normalized values.

Where display 80 is used as a graphical user interface, rectangle 85 can be used as a link to further information about the assay. For example, where the assay is one for gene expression, each rectangle 85 can be used to link to information about the source of the hybridized mRNA, the identity of the control, raw or processed data from the microarray scan, or the like.

FIG. 4 is rendition of display 80 representing gene prediction and gene expression for a hypothetical BAC, showing conventions used in the Examples presented *infra*. BAC sequence ("Chip seq.") 89 is presented, with the physically assayed region thereof (corresponding to rectangle 84 in FIG. 3) shown in white. Algorithmic gene predictions are shown in field 81, with predictions by GRAIL shown, predictions by GENEFINDER, and predictions by DICTION shown. Within rectangle 87, regions of sequence that, when used to query expression databases, return identical or similar sequences ("EST hit") are shown as white rectangles (corresponding to rectangles 880 in FIG. 3), gray indicates low homology, and black indicates unknowns (where black and gray would correspond to rectangles 88 in FIG. 3).

Although FIGS. 3 and 4 show a single stretch of sequence, uninterrupted from left to right, longer sequences are usefully represented by vertical stacking of such individual Mondrians, as shown in FIGS. 9 and 10.

Single Exon Probes Useful For Measuring Gene Expression

The methods and apparatus of the present invention rapidly produce functional information from genomic sequence. Where the function to be identified is protein coding, the methods and apparatus of the present invention rapidly identify and confirm the expression of portions of genomic sequence that function to encode protein. As a direct result, the methods and apparatus of the present invention rapidly yield large numbers of single-exon nucleic acid probes, the majority from previously unknown genes, each of which is useful for measuring and/or surveying expression of a specific gene in one or more tissues or cell types.

It is, therefore, another aspect of the present invention to provide genome-derived single exon nucleic acid probes useful for gene expression analysis, and particularly for gene expression analysis by microarray.

Using the methods and genome-derived single-exon microarrays of the present invention, we have for example readily identified a large number of unique ORFs from human genomic sequence. Using single exon probes that encompass these ORFs, we have demonstrated, through microarray hybridization analysis, the expression of 13,232 of these ORFs in placenta.

As would immediately be appreciated by one of skill in the art, each single exon probe having demonstrable expression in placenta is currently available for use in measuring the level of its ORF's expression in placenta.

Given the substantial impact on human morbidity and mortality of diseases directly caused by genetic defect, and given the profound influence of genetic factors on the predisposition, onset, and/or aggressiveness of most, if not all human diseases, there has long been

interest in efficient and safe means for early detection of gene defects and polymorphisms that cause, are associated with, or are implicated in development of disease.

Classically, such antenatal diagnosis was
5 effected during second trimester by metaphase karyotyping of fetal cells that had shed spontaneously into amniotic fluid.

More recently, techniques have been developed that permit direct sampling of placenta earlier in
10 pregnancy.

One technique in current clinical practice is chorionic villus sampling, which can be used to detect gene defects or polymorphisms in cells from the developing fetus, usually between 10 and 12 weeks of pregnancy. In
15 chorionic villus sampling, a small sample of chorionic villi, which are tiny projections that make up part of the placenta, a fetal-derived tissue, is removed through the mother's cervix or the abdominal wall. Placental chromosomal DNA is then isolated from the chorionic villus
20 cells and analyzed to detect a small number of known genetic defects. Such defects range from gross karyotypic changes, such as triploidy, to discrete point mutations known to cause diseases having significant morbidity or mortality.

25 Although only a few diseases are at present diagnosed by antenatal analysis of human placenta, a far higher number of human diseases and disorders have been catalogued in which dysfunction or misregulation of one or more genes contributes to the disease phenotype. At one
30 end of the spectrum of genetic diseases are those, such as sickle cell trait, in which a single point mutation is responsible for the disease phenotype. At the other end of the spectrum lie disorders such as Down syndrome wherein the presence of a supernumerary chromosome manifests itself
35 in variety of phenotypic defects that vary in severity

among affected individuals. For most, possibly all genetic diseases, the precise phenotypic manifestation and its severity is a function of a complex interaction between the definable genetic lesion and the action of many other genes
5 and environmental factors.

Although the incidence of many genetic diseases is low, a sufficient number of such genetic diseases affect a sufficiently large population that they impact the national health economy. For example, cystic fibrosis,
10 caused by mutations in a gene encoding a chloride ion channel and resulting in lung and other disorders, occurs at a rate of about 1 in 3000 births among Caucasians and costs over \$1 billion annually for direct medical treatment in the U.S. alone. Furthermore, it is increasingly thought
15 that for many diseases where no clear-cut genetic lesion appears responsible, possession by individuals of particular gene alleles naturally occurring within certain populations places such individuals at increased risk for developing those diseases. Examples include heart disease,
20 neurogenerative disorders, diabetes, cancer and autoimmune disorders. For yet other diseases, especially cancer, the etiology is truly polygenic in that defects in multiple genes must coincide in the same individual or even the same cell for the disease to develop and/or progress.

25 A large number of human genetic diseases and disorders are known, as are the gene or genes implicated in the etiology of the disease. Although in some cases single gene defects are known to be responsible for the etiology of a genetic disease, it is believed that for most or all
30 such diseases, penetrance of the disease is affected by interaction with other genes. For other diseases or disorders, it is believed that their mechanism is explained by the interaction of multiple genes, or by mutations or other defects in multiple genes. Such diseases and disorders may
35 be detected in placenta.

The human genome-derived single exon nucleic acid probes and microarrays of the present invention are useful for antenatal diagnosis of human genetic disorders. With each of the single exon probes described herein shown to be
5 expressed at detectable levels in human placenta, and with about 2/3 of the probes identifying novel genes, the single exon microarrays of the present invention provide exceptionally high informational content for such studies.

For example, antenatal diagnosis can be based
10 upon the quantitative relatedness of a placental gene expression profile to one or more reference expression profiles known to be characteristic of a given disease, or to specific grades or stages thereof.

In one embodiment, the gene expression profile is
15 generated by hybridizing nucleic acids obtained directly or indirectly from placenta, typically through chorionic villus sampling, to the genome-derived single exon microarray of the present invention. Reference profiles are obtained similarly by hybridizing nucleic acids from
20 individuals with known disease.

Methods for quantitatively relating gene expression profiles, without regard to the function of the protein encoded by the gene, are disclosed in WO 99/58720, incorporated herein by reference in its entirety.

25 In another approach, the genome-derived single exon probes and microarrays of the present invention can be used to interrogate genomic DNA, rather than pools of expressed message; this latter approach permits presence and/or predisposition to disease to be assessed through the
30 massively parallel determination of altered copy number, deletion, or mutation of exons known to be expressed in human placenta. The algorithms set forth in WO 99/58720 can be applied to such genomic profiles without regard to the function of the protein encoded by the interrogated
35 gene.

The utility is specific to the probe; at sufficiently high hybridization stringency, which stringencies are well known in the art – see Ausubel et al. and Maniatis et al. – each probe reports the level of
5 expression of message specifically containing that ORF.

It should be appreciated, however, that the probes of the present invention, for which expression in the placenta has been demonstrated are useful for both measurement in the placenta and for survey of expression in
10 other tissues.

Significant among such advantages is the presence of probes for novel genes.

As mentioned above and further detailed in Examples 1 and 2, the methods described enable ORFs which
15 are not present in existing expression databases to be identified. And the fewer the number of tissues in which the ORF can be shown to be expressed, the more likely the ORF will prove to be part of a novel gene: as further discussed in Example 2, ORFs whose expression was
20 measurable in only a single of the tested tissues were represented in existing expression databases at a rate of only 11%, whereas 36% of ORFs whose expression was measurable in 9 tissues were present in existing expression databases, and fully 45% of those ORFs expressed in all ten
25 tested tissues were present in existing expressed sequence databases.

Either as tools for measuring gene expression or tools for surveying gene expression, the genome-derived single exon probes of the present invention have
30 significant advantages over the cDNA or EST-based probes that are currently available for achieving these utilities.

The genome-derived single exon probes of the present invention are useful in constructing genome-derived single exon microarrays; the genome-derived single exon
35 microarrays, in turn, are useful devices for measuring and

for surveying gene expression in the human.

Gene expression analysis using microarrays – conventionally using microarrays having probes derived from expressed message – is well-established as useful in the biological research arts (see Lockhart et al. *Nature* 405, 827-836).

Microarrays have been used to determine gene expression profiles in cells in response to drug treatment (see, for example, Kaminski et al., "Global Analysis of Gene Expression in Pulmonary Fibrosis Reveals Distinct Programs Regulating Lung Inflammation and Fibrosis," *Proc. Natl. Acad. Sci. USA* 97(4):1778-83 (2000); Bartosiewicz et al., "Development of a Toxicological Gene Array and Quantitative Assessment of This Technology," *Arch. Biochem. Biophys.* 376(1):66-73 (2000)), viral infection (see for example, Geiss et al., "Large-scale Monitoring of Host Cell Gene Expression During HIV-1 Infection Using cDNA Microarrays," *Virology* 266(1):8-16 (2000)) and during cell processes such as differentiation, senescence and apoptosis (see, for example, Shelton et al., "Microarray Analysis of Replicative Senescence," *Curr. Biol.* 9(17):939-45 (1999); Voehringer et al., "Gene Microarray Identification of Redox and Mitochondrial Elements That Control Resistance or Sensitivity to Apoptosis," *Proc. Natl. Acad. Sci. USA* 97(6):2680-5 (2000)).

Microarrays have also been used to determine abnormal gene expression in diseased tissues (see, for example, Alon et al., "Broad Patterns of Gene Expression Revealed by Clustering Analysis of Tumor and Normal Colon Tissues Probed by Oligonucleotide Arrays," *Proc. Natl. Acad. Sci. USA* 96(12):6745-50 (1999); Perou et al., "Distinctive Gene Expression Patterns in Human Mammary Epithelial Cells and Breast Cancers," *Proc. Natl. Acad. Sci. USA* 96(16):9212-7 (1999); Wang et al., "Identification of Genes Differentially Over-expressed in Lung Squamous Cell

Carcinoma Using Combination of cDNA Subtraction and
Microarray Analysis," *Oncogene* 19(12):1519-28 (2000);
Whitney et al., "Analysis of Gene Expression in Multiple
Sclerosis Lesions Using cDNA Microarrays," *Ann. Neurol.*
5 46(3):425-8 (1999)), in drug discovery screens (see, for
example, Scherf et al., "A Gene Expression Database for the
Molecular Pharmacology of Cancer," *Nat. Genet.* 24(3):236-44
(2000)) and in diagnosis to determine appropriate treatment
strategies (see, for example, Sgroi et al., "In vivo Gene
10 Expression Profile Analysis of Human Breast Cancer
Progression," *Cancer Res.* 59(22):5656-61 (1999)).

In microarray-based gene expression screens of
pharmacological drug candidates upon cells, each probe
provides specific useful data. In particular, it should be
15 appreciated that even those probes that show no change in
expression are as informative as those that do change,
serving, in essence, as negative controls.

For example, where gene expression analysis is
used to assess toxicity of chemical agents on cells, the
20 failure of the agent to change a gene's expression level is
evidence that the drug likely does not affect the pathway
of which the gene's expressed protein is a part.

Analogously, where gene expression analysis is used to
assess side effects of pharmacological agents - whether in
25 lead compound discovery or in subsequent screening of lead
compound derivatives - the inability of the agent to alter
a gene's expression level is evidence that the drug does
not affect the pathway of which the gene's expressed
protein is a part.

30 WO 99/58720 provides methods for quantifying the
relatedness of a first and second gene expression profile
and for ordering the relatedness of a plurality of gene
expression profiles. The methods so described permit
useful information to be extracted from a greater
35 percentage of the individual gene expression measurements

from a microarray than methods previously used in the art.

Other uses of microarrays are described in Gerhold et al., *Trends Biochem. Sci.* 24(5):168-173 (1999) and Zweiger, *Trends Biotechnol.* 17(11):429-436 (1999);

5 Schena et al.

The invention particularly provides genome-derived single-exon probes known to be expressed in placenta. The individual single exon probes can be provided in the form of substantially isolated and purified
10 nucleic acid, typically, but not necessarily, in a quantity sufficient to perform a hybridization reaction.

Such nucleic acid can be in any form directly hybridizable to the message that contains the probe's ORF, such as double stranded DNA, single-stranded DNA
15 complementary to the message, single-stranded RNA complementary to the message, or chimeric DNA/RNA molecules so hybridizable. The nucleic acid can alternatively or additionally include either nonnative nucleotides, alternative internucleotide linkages, or both, so long as
20 complementary binding can be obtained. For example, probes can include phosphorothioates, methylphosphonates, morpholino analogs, and peptide nucleic acids (PNA), as are described, for example, in U.S. Patent Nos. 5,142,047; 5,235,033; 5,166,315; 5,217,866; 5,184,444; 5,861,250.

25 Usefully, however, such probes are provided in a form and quantity suitable for amplification, where the amplified product is thereafter to be used in the hybridization reactions that probe gene expression. Typically, such probes are provided in a form and quantity
30 suitable for amplification by PCR or by other well known amplification technique. One such technique additional to PCR is rolling circle amplification, as is described, *inter alia*, in U.S. Patent Nos. 5,854,033 and 5,714,320 and international patent publications WO 97/19193 and
35 WO 00/15779. As is well understood, where the probes are

to be provided in a form suitable for amplification, the range of nucleic acid analogues and/or internucleotide linkages will be constrained by the requirements and nature of the amplification enzyme.

5 Where the probe is to be provided in form suitable for amplification, the quantity need not be sufficient for direct hybridization for gene expression analysis, and need be sufficient only to function as an amplification template, typically at least about 1, 10 or
10 100 pg or more.

Each discrete amplifiable probe can also be packaged with amplification primers, either in a single composition that comprises probe template and primers, or in a kit that comprises such primers separately packaged
15 therefrom. As earlier mentioned, the ORF-specific 5' primers used for genomic amplification can have a first common sequence added thereto, and the ORF-specific 3' primers used for genomic amplification can have a second, different, common sequence added thereto, thus permitting,
20 in this embodiment, the use of a single set of 5' and 3' primers to amplify any one of the probes. The probe composition and/or kit can also include buffers, enzyme, etc., required to effect amplification.

As mentioned earlier, when intended for use on a
25 genome-derived single exon microarray of the present invention, the genome-derived single exon probes of the present invention will typically average at least about 100, 200, 300, 400 or 500 bp in length, including (and typically, but not necessarily centered about) the ORF.
30 Furthermore, when intended for use on a genome-derived single exon microarray of the present invention, the genome-derived single exon probes of the present invention will typically not contain a detectable label.

When intended for use in solution phase
35 hybridization, however - that is, for use in a

hybridization reaction in which the probe is not first bound to a support substrate (although the target may indeed be so bound) - length constraints that are imposed in microarray-based hybridization approaches will be relaxed, and such probes will typically be labeled.

In such case, the only functional constraint that dictates the minimum size of such probe is that each such probe must be capable of specifically identifying in a hybridization reaction the exon from which it is drawn. In theory, a probe of as little as 17 nucleotides is capable of uniquely identifying its cognate sequence in the human genome. For hybridization to expressed message - a subset of target sequence that is much reduced in complexity as compared to genomic sequence - even fewer nucleotides are required for specificity.

Therefore, the probes of the present invention can include as few as 20, 25 or 50 bp or ORF, or more. In particular embodiments, the ORF sequences are given in SEQ ID NOS. 13,233 - 26,232, respectively, for probe SEQ ID NOS. 1 - 13,232. The minimum amount of ORF required to be included in the probe of the present invention in order to provide specific signal in either solution phase or microarray-based hybridizations can readily be determined for each of ORF SEQ ID NOS. 13,233 - 26,232 individually by routine experimentation using standard high stringency conditions.

Such high stringency conditions are described, *inter alia*, in Ausubel et al. and Maniatis et al. For microarray-based hybridization, standard high stringency conditions can usefully be 50% formamide, 5X SSC, 0.2 µg/µl poly(dA), 0.2 µg/µl human c₀t1 DNA, and 0.5 % SDS, in a humid oven at 42°C overnight, followed by successive washes of the microarray in 1X SSC, 0.2% SDS at 55°C for 5 minutes, and then 0.1X SSC, 0.2% SDS, at 55°C for 20 minutes. For solution phase hybridization, standard high

stringency conditions can usefully be aqueous hybridization at 65°C in 6X SSC. Lower stringency conditions, suitable for cross-hybridization to mRNA encoding structurally- and functionally-related proteins, can usefully be the same as the high stringency conditions but with reduction in temperature for hybridization and washing to room temperature (approximately 25°C).

When intended for use in solution phase hybridization, the maximum size of the single exon probes of the present invention is dictated by the proximity of other expressed exons in genomic DNA: although each single exon probe can include intergenic and/or intronic material contiguous to the ORF in the human genome, each probe of the present invention will include portions of only one expressed exon.

Thus, each single exon probe will include no more than about 25 kb of contiguous genomic sequence, more typically no more than about 20 kb of contiguous genomic sequence, more usually no more than about 15 kb, even more usually no more than about 10 kb. Usually, probes that are maximally about 5 kb will be used, more typically no more than about 3 kb.

It will be appreciated that the Sequence Listing appended hereto presents, by convention, only that strand of the probe and ORF sequence that can be directly translated reading from 5' to 3' end. As would be well understood by one of skill in the art, single stranded probes must be complementary in sequence to the ORF as present in an mRNA; it is well within the skill in the art to determine such complementary sequence. It will further be understood that double stranded probes can be used in both solution-phase hybridization and microarray-based hybridization if suitably denatured.

Thus, it is an aspect of the present invention to provide single-stranded nucleic acid probes that have

sequence complementary to those described herein above and below, and double-stranded probes one strand of which has sequence complementary to the probes described herein.

The probes can, but need not, contain intergenic and/or intronic material that flanks the ORF, on one or both sides, in the same linear relationship to the ORF that the intergenic and/or intronic material bears to the ORF in genomic DNA. The probes do not, however, contain nucleic acid derived from more than one expressed ORF.

And when intended for use in solution hybridization, the probes of the present invention can usefully have detectable labels. Nucleic acid labels are well known in the art, and include, *inter alia*, radioactive labels, such as ^3H , ^{32}P , ^{33}P , ^{35}S , ^{125}I , ^{131}I ; fluorescent labels, such as Cy3, Cy5, Cy5.5, Cy7, SYBR[®]

Green and other labels described in Haugland, *Handbook of Fluorescent Probes and Research Chemicals*, 7th ed., Molecular Probes Inc., Eugene, OR (2000), or fluorescence resonance energy transfer tandem conjugates thereof; labels suitable for chemiluminescent and/or enhanced chemiluminescent detection; labels suitable for ESR and NMR detection; and labels that include one member of a specific binding pair, such as biotin, digoxigenin, or the like.

The probes, either in quantity sufficient for hybridization or sufficient for amplification, can be provided in individual vials or containers.

Alternatively, such probes can usefully be packaged as a plurality of such individual genome-derived single exon probes.

When provided as a collection of plural individual probes, the probes are typically made available in amplifiable form in a spatially-addressable ordered set, typically one per well of a microtiter dish. Although a 96 well microtiter plate can be used, greater efficiency is

obtained using higher density arrays.

If, as earlier mentioned, the ORF-specific 5' primers used for genomic amplification had a first common sequence added thereto, and the ORF-specific 3' primers used for genomic amplification had a second, different, common sequence added thereto, a single set of 5' and 3' primers can be used to amplify all of the probes from the amplifiable ordered set.

Such collections of genome-derived single exon probes can usefully include a plurality of probes chosen for the common attribute of expression in the human placenta.

In such defined subsets, typically at least 50, 60, 75, 80, 85, 90 or 95% or more of the probes will be chosen by their expression in the defined tissue or cell type.

The single exon probes of the present invention, as well as fragments of the single exon probes comprising selectively hybridizable portions of the probe ORF, can be used to obtain the full length cDNA that includes the ORF by (i) screening of cDNA libraries; (ii) rapid amplification of cDNA ends ("RACE"); or (iii) other conventional means, as are described, *inter alia*, in Ausubel et al. and Maniatis et al.

It is another aspect of the present invention to provide genome-derived single exon nucleic acid microarrays useful for gene expression analysis, where the term "microarray" has the meaning given in the definitional section of this description, *supra*.

The invention particularly provides genome-derived single-exon nucleic acid microarrays comprising a plurality of probes known to be expressed in human placenta. In preferred embodiments, the present invention provides human genome-derived single exon microarrays comprising a plurality of probes drawn from the group

consisting of SEQ ID NOS.: 1 - 13,232.

When used for gene expression analysis, the genome-derived single exon microarrays provide greater physical informational density than do the genome-derived single exon microarrays that have lower percentages of probes known to be expressed commonly in the tested tissue. At a fixed probe density, for example, a given microarray surface area of the defined subset genome-derived single exon microarray can yield a greater number of expression measurements. Alternatively, at a given probe density, the same number of expression measurements can be obtained from a smaller substrate surface area. Alternatively, at a fixed probe density and fixed surface area, probes can be provided redundantly, providing greater reliability in signal measurement for any given probe. Furthermore, with a higher percentage of probes known to be expressed in the assayed tissue, the dynamic range of the detection means can be adjusted to reveal finer levels discrimination among the levels of expression.

Although particularly described with respect to their utility as probes of gene expression, particularly as probes to be included on a genome-derived single exon microarray, each of the nucleic acids having SEQ ID NOS.: 1 - 13,232 contains an open-reading frame, set forth respectively in SEQ ID NOS.: 13,233 - 26,232, that encodes a protein domain. Thus, each of SEQ ID NOS. 1 - 13,232 can be used, or that portion thereof in SEQ ID NOS. 13,233 - 26,232 used, to express a protein domain by standard *in vitro* recombinant techniques. See Ausubel et al. and Maniatis et al.

Additionally, kits are available commercially that readily permit such nucleic acids to be expressed as protein in bacterial cells, insect cells, or mammalian cells, as desired (e.g., HAT[™] Protein Expression & Purification System, ClonTech Laboratories, Palo Alto, CA;

Adeno-X™ Expression System, ClonTech Laboratories, Palo Alto, CA; Protein Fusion & Purification (pMAL™) System, New England Biolabs, Beverly, MA)

Furthermore, shorter peptides can be chemically synthesized using commercial peptide synthesizing equipment and well known techniques. Procedures are described, *inter alia*, in Chan et al. (eds.), Fmoc Solid Phase Peptide Synthesis: A Practical Approach (Practical Approach Series, (Paper)), Oxford Univ. Press (March 2000) (ISBN: 0199637245); Jones, Amino Acid and Peptide Synthesis (Oxford Chemistry Primers, No 7) , Oxford Univ. Press (August 1992) (ISBN: 0198556683); and Bodanszky, Principles of Peptide Synthesis (Springer Laboratory), Springer Verlag (December 1993) (ISBN: 0387564314).

It is, therefore, another aspect of the invention to provide peptides comprising an amino acid sequence translated from SEQ ID NOS.: 13,233 - 26,232. Such amino acid sequences are set out in SEQ ID NOS: 26,233 - 38,837. Any such recombinantly-expressed or synthesized peptide of at least 8, and preferably at least about 15, amino acids, can be conjugated to a carrier protein and used to generate antibody that recognizes the peptide. Thus, it is a further aspect of the invention to provide peptides that have at least 8, preferably at least 15, consecutive amino acids.

The following examples are offered by way of illustration and not by way of limitation.

EXAMPLE 1

Preparation of Single Exon Microarrays from ORFs Predicted in Human Genomic Sequence

Bioinformatics Results

All human BAC sequences in fewer than 10 pieces

that had been accessioned in a five month period immediately preceding this study were downloaded from GenBank. This corresponds to ~2200 clones, totaling ~350 MB of sequence, or approximately 10% of the human genome.

5 After masking repetitive elements using the program CROSS_MATCH, the sequence was analyzed for open reading frames using three separate gene finding programs. The three programs predict genes using independent algorithmic methods developed on independent training sets:
10 GRAIL uses a neural network, GENEFINDER uses a hidden Markoff model, and DICTION, a program proprietary to Genetics Institute, operates according to a different heuristic. The results of all three programs were used to create a prediction matrix across the segment of genomic
15 DNA.

The three gene finding programs yielded a range of results. GRAIL identified the greatest percentage of genomic sequence as putative coding region, 2% of the data analyzed. GENEFINDER was second, calling 1%, and DICTION
20 yielded the least putative coding region, with 0.8% of genomic sequence called as coding region.

The consensus data were as follows. GRAIL and GENEFINDER agreed on 0.7% of genomic sequence, GRAIL and DICTION agreed on 0.5% of genomic sequence, and the three
25 programs together agreed on 0.25% of the data analyzed. That is, 0.25% of the genomic sequence was identified by all three of the programs as containing putative coding region.

ORFs predicted by any two of the three programs
30 ("consensus ORFs") were assorted into "gene bins" using two criteria: (1) any 7 consecutive exons within a 25 kb window were placed together in a bin as likely contributing to a single gene, and (2) all ORFs within a 25 kb window were placed together in a bin as likely contributing to a single
35 gene if fewer than 7 exons were found within the 25 kb

window.

PCR

The largest ORF from each gene bin that did not span repetitive sequence was then chosen for amplification, as were all consensus ORFs longer than 500 bp. This method approximated one exon per gene; however, a number of genes were found to be represented by multiple elements.

Previously, we had determined that DNA fragments fewer than 250 bp in length do not bind well to the amino-modified glass surface of the slides used as support substrate for construction of microarrays; therefore, amplicons were designed in the present experiments to approximate 500 bp in length.

Accordingly, after selecting the largest ORF per gene bin, a 500 bp fragment of sequence centered on the ORF was passed to the primer picking software, PRIMER3 (available online for use at <http://www-genome.wi.mit.edu/cgi-bin/primer/>). A first additional sequence was commonly added to each ORF-unique 5' primer, and a second, different, additional sequence was commonly added to each ORF-unique 3' primer, to permit subsequent reamplification of the amplicon using a single set of "universal" 5' and 3' primers, thus immortalizing the amplicon. The addition of universal priming sequences also facilitates sequence verification, and can be used to add a cloning site should some ORFs be found to warrant further study.

The ORFs were then PCR amplified from genomic DNA, verified on agarose gels, and sequenced using the universal primers to validate the identity of the amplicon to be spotted in the microarray.

Primers were supplied by Operon Technologies (Alameda, CA). PCR amplification was performed by standard techniques using human genomic DNA (Clontech, Palo Alto,

CA) as template. Each PCR product was verified by SYBR[®] green (Molecular Probes, Inc., Eugene, OR) staining of agarose gels, with subsequent imaging by Fluorimager (Molecular Dynamics, Inc., Sunnyvale, CA). PCR
5 amplification was classified as successful if a single band appeared.

The success rate for amplifying ORFs of interest directly from genomic DNA using PCR was approximately 75%. FIG. 5 graphs the distribution of predicted ORF (exon)
10 length and distribution of amplified PCR products, with ORF length shown in red and PCR product length shown in blue (which may appear black in the figure). Although the range of ORF sizes is readily seen to extend to beyond 900 bp, the mean predicted exon size was only 229 bp, with a median
15 size of 150 bp (n=9498). With an average amplicon size of 475 ± 25 bp, approximately 50% of the average PCR amplification product contained predicted coding region, with the remaining 50% of the amplicon containing either intron, intergenic sequence, or both.

20 Using a strategy predicated on amplifying about 500 bp, it was found that long exons had a higher PCR failure rate. To address this, the bioinformatics process was adjusted to amplify 1000, 1500 or 2000 bp fragments from exons larger than 500 bp. This improved the rate of
25 successful amplification of exons exceeding 500 bp, constituting about 9.2% of the exons predicted by the gene finding algorithms.

Approximately 75% of the probes disposed on the array (90% of those that successfully PCR amplified) were
30 sequence-verified by sequencing in both the forward and reverse direction using MegaBACE sequencer (Molecular Dynamics, Inc., Sunnyvale, CA), universal primers, and standard protocols.

Some genomic clones (BACs) yielded very poor PCR
35 and sequencing results. The reasons for this are unclear,

but may be related to the quality of early draft sequence or the inclusion of vector and host contamination in some submitted sequence data.

Although the intronic and intergenic material
5 flanking coding regions could theoretically interfere with hybridization during microarray experiments, subsequent empirical results demonstrated that differential expression ratios were not significantly affected by the presence of noncoding sequence. The variation in exon size was
10 similarly found not to affect differential expression ratios significantly; however, variation in exon size was observed to affect the absolute signal intensity (data not shown).

The 350 MB of genomic DNA was, by the above-
15 described process, reduced to 9750 discrete probes, which were spotted in duplicate onto glass slides using commercially available instrumentation (MicroArray GenII Spotter and/or MicroArray GenIII Spotter, Molecular Dynamics, Inc., Sunnyvale, CA). Each slide additionally
20 included either 16 or 32 *E. coli* genes, the average hybridization signal of which was used as a measure of background biological noise.

Each of the probe sequences was BLASTed against the human EST data set, the NR data set, and SwissProt
25 GenBank (May 7, 1999 release 2.0.9).

One third of the probe sequences (as amplified) produced an exact match (BLAST Expect ("E") values less than 1 e^{-100}) to either an EST (20% of sequences) or a known mRNA (13% of sequences). A further 22% of the probe
30 sequences showed some homology to a known EST or mRNA (BLAST E values from 1 e^{-5} to 1 e^{-99}). The remaining 45% of the probe sequences showed no significant sequence homology to any expressed, or potentially expressed, sequences present in public databases.

35 All of the probe sequences (as amplified) were

then analyzed for protein similarities with the SwissProt database using BLASTX, Gish et al., *Nature Genet.* 3:266 (1993). The predicted functional breakdowns of the 2/3 of probes identical or homologous to known sequences are presented in Table 1.

Table 1

| Function of Predicted ORFs As Deduced From Comparative Sequence Analysis | | | |
|--|---------|---------|---|
| Total | V6 chip | V7 chip | Function Predicted from Comparative Sequence Analysis |
| 211 | 96 | 115 | Receptor |
| 120 | 43 | 77 | Zinc Finger |
| 30 | 11 | 19 | Homeobox |
| 25 | 9 | 16 | Transcription Factor |
| 17 | 11 | 7 | Transcription |
| 118 | 57 | 61 | Structural |
| 95 | 39 | 56 | Kinase |
| 36 | 18 | 18 | Phosphatase |
| 83 | 31 | 52 | Ribosomal |
| 45 | 19 | 26 | Transport |
| 21 | 17 | 14 | Growth Factor |
| 17 | 12 | 5 | Cytochrome |
| 50 | 33 | 17 | Channel |

As can be seen, the two most common types of genes were transcription factors and receptors, making up 2.2% and 1.8% of the arrayed elements, respectively.

EXAMPLE 2

Gene Expression Measurements From Genome-Derived Single

Exon Microarrays

The two genome-derived single exon microarrays
5 prepared according to Example 1 were hybridized in a series
of simultaneous two-color fluorescence experiments to (1)
Cy3-labeled cDNA synthesized from message drawn
individually from each of brain, heart, liver, fetal liver,
placenta, lung, bone marrow, HeLa, BT 474, or HBL 100
10 cells, and (2) Cy5-labeled cDNA prepared from message
pooled from all ten tissues and cell types, as a control in
each of the measurements. Hybridization and scanning were
carried out using standard protocols and Molecular Dynamics
equipment.

15 Briefly, mRNA samples were bought from commercial
sources (Clontech, Palo Alto, CA and Amersham Pharmacia
Biotech (APB)). Cy3-dCTP and Cy5-dCTP (both from APB) were
incorporated during separate reverse transcriptions of 1 µg
of polyA⁺ mRNA performed using 1 µg oligo(dT)12-18 primer
20 and 2 µg random 9mer primers as follows. After heating to
70°C, the RNA:primer mixture was snap cooled on ice. After
snap cooling on ice, added to the RNA to the stated final
concentration was: 1X Superscript II buffer, 0.01 M DTT,
100µM dATP, 100 µM dGTP, 100 µM dTTP, 50 µM dCTP, 50 µM
25 Cy3-dCTP or Cy5-dCTP 50 µM, and 200 U Superscript II
enzyme. The reaction was incubated for 2 hours at 42°C.
After 2 hours, the first strand cDNA was isolated by adding
1 U Ribonuclease H, and incubating for 30 minutes at 37°C.
The reaction was then purified using a Qiagen PCR cleanup
30 column, increasing the number of ethanol washes to 5.
Probe was eluted using 10 mM Tris pH 8.5.

Using a spectrophotometer, probes were measured
for dye incorporation. Volumes of both Cy3 and Cy5 cDNA
corresponding to 50 pmoles of each dye were then dried in a
35 Speedvac, resuspended in 30 µl hybridization solution

containing 50% formamide, 5X SSC, 0.2 µg/µl poly(dA), 0.2 µg/µl human c_ot1 DNA, and 0.5 % SDS.

Hybridizations were carried out under a coverslip, with the array placed in a humid oven at 42°C overnight. Before scanning, slides were washed in 1X SSC, 0.2% SDS at 55°C for 5 minutes, followed by 0.1X SSC, 0.2% SDS, at 55°C for 20 minutes. Slides were briefly dipped in water and dried thoroughly under a gentle stream of nitrogen.

Slides were scanned using a Molecular Dynamics Gen3 scanner, as described. Schena (ed.), Microarray Biochip: Tools and Technology, Eaton Publishing Company/BioTechniques Books Division (2000) (ISBN: 1881299376).

Although the use of pooled cDNA as a reference permitted the survey of a large number of tissues, it attenuates the measurement of relative gene expression, since every highly expressed gene in the tissue/cell type-specific fluorescence channel will be present to a level of at least 10% in the control channel. Because of this fact, both signal and expression ratios (the latter hereinafter, "expression" or "relative expression") for each probe were normalized using the average ratio or average signal, respectively, as measured across the whole slide.

Data were accepted for further analysis only when signal was at least three times greater than biological noise, the latter defined by the average signal produced by the *E. coli* control genes.

The relative expression signal for these probes was then plotted as function of tissue or cell type, and is presented in FIG. 6.

FIG. 6 shows the distribution of expression across a panel of ten tissues. The graph shows the number of sequence-verified products that were either not expressed ("0"), expressed in one or more but not all

tested tissues ("1" - "9"), and expressed in all tissues tested ("10").

Of 9999 arrayed elements on the two microarrays (including positive and negative controls and "failed" products), 2353 (51%) were expressed in at least one tissue or cell type. Of the gene elements showing significant signal - where expression was scored as "significant" if the normalized Cy3 signal was greater than 1, representing signal 5-fold over biological noise (0.2) - 39% (991) were expressed in all 10 tissues. The next most common class (15%) consisted of gene elements expressed in only a single tissue.

The genes expressed in a single tissue were further analyzed, and the results of the analyses are compiled in FIG. 7.

FIG. 7A is a matrix presenting the expression of all verified sequences that showed expression greater than 3 in at least one tissue. Each clone is represented by a column in the matrix. Each of the 10 tissues assayed is represented by a separate row in the matrix, and relative expression of a clone in that tissue is indicated at the respective node by intensity of green shading, with the intensity legend shown in panel B. The top row of the matrix ("EST Hit") contains "bioinformatic" rather than "physical" expression data - that is, presents the results returned by query of EST, NR and SwissProt databases using the probe sequence. The legend for "bioinformatic expression" (i.e., degree of homology returned) is presented in panel C. Briefly, white is known, black is novel, with gray depicting nonidentical with significant homology (white: E values < 1e-100; gray: E values from 1e-05 to 1e-99; black: E values > 1e-05).

As FIG. 7 readily shows, heart and brain were demonstrated to have the greatest numbers of genes that were shown to be uniquely expressed in the respective

tissue. In brain, 200 uniquely expressed genes were identified; in heart, 150. The remaining tissues gave the following figures for uniquely expressed genes: liver, 100; lung, 70; fetal liver, 150; bone marrow, 75; placenta, 100; 5 HeLa, 50; HBL, 100; and BT474, 50.

It was further observed that there were many more "novel" genes among those that were up-regulated in only one tissue, as compared with those that were down-regulated in only one tissue. In fact, it was found that ORFs whose 10 expression was measurable in only a single of the tested tissues were represented in sequencing databases at a rate of only 11%, whereas 36% of the ORFs whose expression was measurable in 9 of the tissues were present in public databases. As for those ORFs expressed in all ten tissues, 15 fully 45% were present in existing expressed sequence databases. These results are not unexpected, since genes expressed in a greater number of tissues have a higher likelihood of being, and thus of having been, discovered by EST approaches.

20

Comparison of Signal from Known and Unknown Genes

The normalized signal of the genes found to have high homology to genes present in the GenBank human EST database were compared to the normalized signal of those 25 genes not found in the GenBank human EST database. The data are shown in FIG. 8.

FIG. 8 shows the normalized Cy3 signal intensity for all sequence-verified products with a BLAST Expect ("E") value of greater than $1e-30$ (designated "unknown") 30 upon query of existing EST, NR and SwissProt databases, and shows in blue the normalized Cy3 signal intensity for all sequence-verified products with a BLAST Expect value of less than $1e-30$ ("known"). Note that biological background noise has an averaged normalized Cy3 signal intensity of 35 0.2.

As expected, the most highly expressed of the ORFs were "known" genes. This is not surprising, since very high signal intensity correlates with very commonly-expressed genes, which have a higher likelihood of being found by EST sequence.

However, a significant point is that a large number of even the high expressers were "unknown". Since the genomic approach used to identify genes and to confirm their expression does not bias exons toward either the 3' or 5' end of a gene, many of these high expression genes will not have been detected in an end-sequenced cDNA library.

The significant point is that presence of the gene in an EST database is not a prerequisite for incorporation into a genome-derived microarray, and further, that arraying such "unknown" exons can help to assign function to as-yet undiscovered genes.

Verification of Gene Expression

To ascertain the validity of the approach described above to identify genes from raw genomic sequence, expression of two of the probes was assayed using reverse transcriptase polymerase chain reaction (RT PCR) and northern blot analysis.

Two microarray probes were selected on the basis of exon size, prior sequencing success, and tissue-specific gene expression patterns as measured by the microarray experiments. The primers originally used to amplify the two respective ORFs from genomic DNA were used in RT PCR against a panel of tissue-specific cDNAs (Rapid-Scan gene expression panel 24 human cDNAs) (OriGene Technologies, Inc., Rockville, MD).

Sequence AL079300_1 was shown by microarray hybridization to be present in cardiac tissue, and sequence AL031734_1 was shown by microarray experiment to be present

in placental tissue (data not shown). RT-PCR on these two sequences confirmed the tissue-specific gene expression as measured by microarrays, as ascertained by the presence of a correctly sized PCR product from the respective tissue
5 type cDNAs.

Clearly, all microarray results cannot, and indeed should not, be confirmed by independent assay methods, or the high throughput, highly parallel advantages of microarray hybridization assays will be lost. However,
10 in addition to the two RT-PCR results presented above, the observation that 1/3 of the arrayed genes exist in expression databases provides powerful confirmation of the power of our methodology - which combines bioinformatic prediction with expression confirmation using genome-
15 derived single exon microarrays - to identify novel genes from raw genomic data.

To verify that the approach further provides correct characterization of the expression patterns of the identified genes, a detailed analysis was performed of the
20 microarrayed sequences that showed high signal in brain.

For this latter analysis, sequences that showed high (normalized) signal in brain, but which showed very low (normalized) signal (less than 0.5, determined to be biological noise) in all other tissues, were further
25 studied. There were 82 sequences that fit these criteria, approximately 2% of the arrayed elements. The 10 sequences showing the highest signal in brain in microarray hybridizations are detailed in Table 2, along with assigned function, if known or reasonably predicted.

30

Table 2

| |
|--|
| Function of the Most Highly Expressed Genes Expressed Only in Brain |
|--|

| Microarray Sequence Name | Normal ized Signal | Expressi on Ratio | Homology to EST present in GenBank | Gene Function as described by GenBank |
|--------------------------------|--------------------------|----------------------|--|---|
| AP000217-1 | 5.2 | +7.7 | High | S-100 protein, b-chain, Ca ²⁺ binding protein expressed in central nervous system |
| AP000047-1 | 2.3 | | High | Unknown Function |
| AC006548-9 | 1.7 | | High | Similar to mouse membrane glyco-protein M6, expressed in central nervous system |
| AC007245-5 | 1.5 | | High | Similar to amphiphysin, a synaptic vesicle- associated protein. Ref 21 |
| L44140-4 | 1.2 | +2.0 | High | Endothelial actin-binding protein found in nonmuscle filamin |
| AC004689-9 | 1.2 | +3.5 | High | Protein Phosphatase PP2A, neuronal/ downregulates |

| | | | | |
|------------|-----|------|------|--|
| | | | | activated protein kinases |
| AL031657-1 | 1.2 | +3.0 | High | Unknown function/ Contains the anhyrin motif, a common protein sequence motif |
| AC009266-2 | 1.1 | +3.7 | Low | Low homology to the Synaptotagmin I protein in rat/present at low levels throughout rat brain |
| AP000086-1 | 1.0 | +2.7 | Low | Unknown, very poor homology to collagen |
| AC004689-3 | 1.0 | | High | Protein Phosphatase PP2A, neuronal/ downregulates activated protein kinases |

Of the ten sequences studied by these latter confirmatory approaches, eight were previously known. Of these eight, six had previously been reported to be important in the central nervous system or brain. The exon giving the highest signal (AP00217-1) was found to be the gene encoding an S100B Ca^{2+} binding protein, reported in the literature to be highly and uniquely expressed in the central nervous system. Heizmann, *Neurochem. Res.* 9:1097

(1997).

A number of the brain-specific probe sequences (including AC006548-9, AC009266-2) did not have homology to any known human cDNAs in GenBank but did show homology to
5 rat and mouse cDNAs. Sequences AC004689-9 and AC004689-3 were both found to be phosphatases present in neurons (Millward et al., *Trends Biochem. Sci.* 24(5):186-191 (1999)). Two microarray sequences, AP000047-1 and AP000086-1 have unknown function, with AP000086-1 being
10 absent from GenBank. Functionality can now be narrowed down to a role in the central nervous system for both of these genes, showing the power of designing microarrays in this fashion.

Next, the function of the chip sequences with the
15 highest (normalized) signal intensity in brain, regardless of expression in other tissues, was assessed. In this latter analysis, we found expression of many more common genes, since the sequences were not limited to those expressed only in brain. For example, looking at the 20
20 highest signal intensity spots in brain, 4 were similar to tubulin (AC00807905; AF146191-2; AC007664-4; AF14191-2), 2 were similar to actin (AL035701-2; AL034402-1), and 6 were found to be homologous to glyceraldehyde-3-phosphate dehydrogenase (GAPDH) (AL035604-1; Z86090-1; AC006064-L,
25 AC006064-K; AC035604-3; AC006064-L). These genes are often used as controls or housekeeping genes in microarray experiments of all types.

Other interesting genes highly expressed in brain were a ferritin heavy chain protein, which is reported in
30 the literature to be found in brain and liver (Joshi et al., *J. Neurol. Sci.* 134(Suppl):52-56 (1995)), a result duplicated with the array. Other highly expressed chip sequences included a translation elongation factor 1 α (AC007564-4), a DEAD-box homolog (AL023804-4), and a Y-
35 chromosome RNA-binding motif (Chai et al., *Genomics*

49(2):283-89 (1998)) (AC007320-3). A low homology analog (AP00123-1/2) to a gene, DSCR1, thought to be involved in trisomy 21 (Down's syndrome), showed high expression in both brain and heart, in agreement with the literature (Fuentes et al., *Mol. Genet.* 4(10):1935-44 (1995)).

As a further validation of the approach, we selected the BAC AC006064 to be included on the array. This BAC was known to contain the GAPDH gene, and thus could be used as a control for the ORF selection process. The gene finding and exon selection algorithms resulted in choosing 25 exons from BAC AC006064 for spotting onto the array, of which four were drawn from the GAPDH gene. Table 3 shows the comparison of the average expression ratio for the 4 exons from BAC006064 compared with the average expression ratio for 5 different dilutions of a commercially available GAPDH cDNA (Clontech).

Table 3

| Comparison of Expression Ratio, for each tissue, of GAPDH | | |
|---|------------------|-----------------|
| | AC006064 (n = 4) | Control (n = 5) |
| Bone Marrow | -1.81 ± 0.11 | -1.85 ± 0.08 |
| Brain | -1.41 ± 0.11 | -1.17 ± 0.05 |
| BT474 | 1.85 ± 0.09 | 1.66 ± 0.12 |
| Fetal Liver | -1.62 ± 0.07 | -1.41 ± 0.05 |
| HBL100 | 1.32 ± 0.05 | 2.64 ± 0.12 |
| Heart | 1.16 ± 0.09 | 1.56 ± 0.10 |
| HeLa | 1.11 ± 0.06 | 1.30 ± 0.15 |
| Liver | -1.62 ± 0.22 | -2.07 ± |
| Lung | -4.95 ± 0.93 | -3.75 ± 0.21 |
| Placenta | -3.56 ± 0.25 | -3.52 ± 0.43 |

Each tissue shows excellent agreement between the experimentally chosen exons and the control, again demonstrating the validity of the present exon mining approach. In addition, the data also show the variability of expression of GAPDH within tissues, calling into question its classification as a housekeeping gene and utility as a housekeeping control in microarray experiments.

10 EXAMPLE 3

Representation of Sequence and Expression Data as a "Mondrian"

For each genomic clone processed for microarray as above-described, a plethora of information was accumulated, including full clone sequence, probe sequence within the clone, results of each of the three gene finding programs, EST information associated with the probe sequences, and microarray signal and expression for multiple tissues, challenging our ability to display the information.

Accordingly, we devised a new tool for visual display of the sequence with its attendant annotation which, in deference to its visual similarity to the paintings of Piet Mondrian, is hereinafter termed a "Mondrian". FIGS. 3 and 4 present the key to the information presented on a Mondrian.

FIG. 9 presents a Mondrian of BAC AC008172 (bases 25,000 to 130,000 shown), containing the carbamyl phosphate synthetase gene (AF154830.1). Purple background within the region shown as field 81 in FIG. 3 indicates all 37 known exons for this gene.

As can be seen, GRAIL II successfully identified 27 of the known exons (73%), GENEFINDER successfully identified 37 of the known exons (100%), while DICTION

identified 7 of the known exons (19%).

Seven of the predicted exons were selected for physical assay, of which 5 successfully amplified by PCR and were sequenced. These five exons were all found to be
5 from the same gene, the carbamyl phosphate synthetase gene (AF154830.1).

The five exons were arrayed, and gene expression measured across 10 tissues. As is readily seen in the Mondrian, the five chip sequences on the array show
10 identical expression patterns, elegantly demonstrating the reproducibility of the system.

FIG. 10 is a Mondrian of BAC AL049839. We selected 12 exons from this BAC, of which 10 successfully sequenced, which were found to form between 5 and 6 genes.
15 Interestingly, 4 of the genes on this BAC are protease inhibitors. Again, these data elegantly show that exons selected from the same gene show the same expression patterns, depicted below the red line. From this figure, it is clear that our ability to find known genes is very
20 good. A novel gene is also found from 86.6 kb to 88.6 kb, upon which all the exon finding programs agree. We are confident we have two exons from a single gene since they show the same expression patterns and the exons are proximal to each other. Backgrounds in the following
25 colors indicate a known gene (top to bottom):
red = kallistatin protease inhibitor (P29622);
purple = plasma serine protease inhibitor (P05154);
turquoise = α 1 anti-chymotrypsin (P01011); mauve = 40S ribosomal protein (P08865). Note that chip sequence 8 and
30 12 did not sequence verify.

EXAMPLE 4

Genome-Derived Single Exon Probes Useful For Measuring
35 Human Gene Expression

The protocols set forth in Examples 1 and 2, *supra*, were applied to additional human genomic sequence as it became newly available in GenBank to identify unique
5 exons in the human genome that could be shown to be expressed at significant levels in placenta tissue.

These unique exons are within longer probe sequences. Each probe was completely sequenced on both strands prior to its use on a genome-derived single exon
10 microarray; sequencing confirms the exact chemical structure of each probe. An added benefit of sequencing is that it placed us in possession of a set of single base-incremented fragments of the sequenced nucleic acid, starting from the sequencing primer 3' OH. (Since the
15 single exon probes were first obtained by PCR amplification from genomic DNA, we were of course additionally in possession of an even larger set of single base incremented fragments of each of the 13,232 single exon probes, each fragment corresponding to an extension product from one of
20 the two amplification primers.)

The structures of the 13,232 unique single exon probes are clearly presented in the Sequence Listing as SEQ ID Nos.: 1 - 13,232. The 16 nt 5' primer sequence and 16 nt 3' primer sequence present on the amplicon are not
25 included in the sequence listing. The sequences of the exons present within each of these probes is presented in the Sequence Listing as SEQ ID Nos.: 13,233 - 26,232, respectively. It will be noted that some amplicons have more than one exon, some exons are contained in more than
30 one amplicon.

As detailed in Example 2, expression was demonstrated by disposing the amplicons as single exon probes on nucleic acid microarrays and then performing two-color fluorescent hybridization analysis; significant
35 expression is based on a statistical confidence that the

signal is significantly greater than negative biological control spots. The negative biological control is formed from spotted DNA sequences from a different species. Here, 32 sequences from E.Coli were spotted in duplicate to give
5 a total of 64 spots.

For each hybridisation (each slide, each colour) the median value of the signal from all of the spots is determined. The normalised signal value is the arithmetic mean of the signal from duplicate spots divided by the
10 population median.

Control spots are eliminated if there is more than a five-fold difference between each one of the duplicate spots raw signals.

The median of the signal from the remaining
15 control spots is calculated and all subsequent calculations are done with normalised signals.

Control spots having a signal of greater than median + 2.4 (the value 2.4 is roughly 12 times the observed standard deviation of control spot populations)
20 are eliminated. Spots with such high signals are considered to be "outliers".

The mean and standard deviation of the modified control spot populations are calculated.

The mean + 3x the standard deviation (mean +
25 (3*SD)) is used as the signal threshold qualifier for that particular hybridisation. Thus, individual thresholds are determined for each channel and each hybridisation.

This means that, assuming that the data is distributed normally, there is a 99% confidence that any
30 signal exceeding the threshold is significant.

The probes and their expression data are presented in Table 4, set forth respectively in Example 5. Example 5 presents the subset of probes that is significantly expressed in the human placenta and thus
35 presents the subset of probes that was recognized to be

useful for measuring expression of their cognate genes in human placenta tissue.

The sequence of each of the exon probes identified by SEQ ID NOS.: 13,233 - 26,232 was individually
5 used as a BLAST (or, for SWISSPROT, BLASTX) query to identify the most similar sequence in each of dbEST, SwissProt (BLASTX), and NR divisions of GenBank. Because the query sequences are themselves derived from genomic sequence in GenBank, only nongenic hits from NR were
10 scored.

The smallest in value of the BLAST (or BLASTX) expect ("E") scores for each query sequence across the three database divisions was used as a measure of the "expression novelty" of the probe's ORF. Table 4 is sorted
15 in descending order based on this measure, reported as "Most Similar (top) Hit BLAST E Value". Those sequences for which no "Hit E Value" is listed are those exons which were found to have no similar sequences.

As sorted, Table 4 thus lists its respective
20 probes (by "AMPLICON SEQ ID NO.:" and additionally by the SEQ ID NO.: of the exon contained within the probe: "EXON SEQ ID NO.:") from least similar to sequences known to be expressed (i.e., highest BLAST E value), at the beginning of the table, to most similar to sequences known to be
25 expressed (i.e., lowest BLAST E value), at the bottom of the table.

Table 4 further provides, for each listed probe, the accession number of the database sequence that yielded the "Most Similar (top) Hit BLAST E Value", along with the
30 name of the database in which the database sequence is found ("Top Hit Database Source").

Table 4 further provides SEQ ID NOS. corresponding to the predicted amino acid sequences where they have been determined for the probe and exon nucleotide
35 sequences. These are set out as PEPTIDE SEQ ID NOS.: The

peptide sequences for a given exon are predicted as follows: Since each chip exon is a consensus sequence drawn from predictions from various exon finding programs (i.e. Grail, GeneFinder and GenScan), the multiple initial ORFs
5 are first determined in a uniform way according to each prediction. In particular, the reading frame for predicting the first amino acid in the peptide sequence always starts with the first base of any codon and ends with the last base of non-termination codon. Next, for each strand of the
10 exon, initial ORFs are merged into one or more final ORFs in an exhaustive process based on the following criteria: 1) the merging ORFs must be overlapping, and 2) the merging ORFs must be in the same frame.

The Sequence Listing, which is a superset of all
15 of the data presented in Table 4, further includes, for each probe, the most similar hit, with accession number and BLAST E value, from the each of the three queried databases.

Table 4 further lists, for each probe, a portion
20 of the descriptor for the top hit ("Top Hit Descriptor") as provided in the sequence database. For those ORFs that are similar in sequence, but nonidentical to known sequences (e.g., those with BLAST E values between about $1e-05$ and $1e-100$), the descriptor reveals the likely function of the
25 protein encoded by the probe's ORF.

Using BLAST E value cutoffs of $1e-05$ (i.e., 1×10^{-5}) and $1e-100$ (i.e., 1×10^{-100}) as evidence of similarity to sequences known to be expressed is of course arbitrary: in Example 2, *supra*, a BLAST E value of $1e-30$ was used as
30 the boundary when only two classes were to be defined for analysis (unknown, $>1e-30$; known $<1e-30$) (see also FIG. 8). Furthermore, even when the "Most Similar (Top) Hit BLAST E Value" is low, e.g., less than about $1e-100$ - which is probative evidence that the query sequence has previously
35 been shown to be expressed - the top hit is highly unlikely

exactly to match the probe sequence.

First, such expression entries typically will not have the intronic and/or intergenic sequence present within the single exon probes listed in the Table. Second, even
5 the ORF itself is unlikely in such cases to be present identically in the databases, since most of the EST and mRNA clones in existing databases include multiple exons, without any indication of the location of exon boundaries.

As noted, the data presented in Table 4 represent
10 a proper subset of the data present within the attached sequence listing. For each amplicon probe (SEQ ID NOS.: 1 - 13,232) and probe exon (SEQ ID NOS.: 13,233 - 26,232, respectively), the sequence listing further provides, through iterated annotation fields <220> and <223>:

15 (a) the accession number of the BAC from which the sequence was derived ("MAP TO"), thus providing a link to the chromosomal map location and other information about the genomic milieu of the probe sequence;

(b) the most similar sequence provided by BLAST
20 query of the EST database, with accession number and BLAST E value for the "hit";

(c) the most similar sequence provided by BLAST query of the GenBank NR database, with accession number and BLAST E value for the "hit"; and

25 (d) the most similar sequence provided by BLASTX query of the SWISSPROT database, with accession number and BLAST E value for the "hit".

30 EXAMPLE 5

Genome-Derived Single Exon Probes Useful For Measuring
Expression of Genes in Human Placenta

Table 4 (550 pages) presents expression, homology, and
35 functional information for the genome-derived single exon

probes that are expressed significantly in human placenta.

Page 1 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Database Source | Top Hit Accession No. | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|-------------------------------|-----------------------------|--------------------|
| 463 | 13658 | 26695 | 6 | | | | |
| 912 | 14097 | 27162 | 9.68 | | | | |
| 1070 | 14236 | | 3.01 | | | | |
| 1330 | 14487 | 27555 | 10.9 | | | | |
| 1645 | 14767 | 27882 | 1.92 | | | | |
| 1666 | 14818 | 27901 | 4.94 | | | | |
| 1764 | 14913 | 28008 | 1.03 | | | | |
| 1788 | 14937 | 28030 | 1.67 | | | | |
| 1794 | 14943 | 28036 | 8.53 | | | | |
| 1939 | 15082 | 28183 | 1.57 | | | | |
| 2034 | 16176 | 28289 | 2.66 | | | | |
| 2234 | 15368 | 28497 | 3.39 | | | | |
| 2353 | 15484 | 28616 | 2.53 | | | | |
| 3255 | 16428 | 29447 | 3.75 | | | | |
| 3637 | 16702 | 28713 | 1.48 | | | | |
| 3604 | 16768 | 29783 | 10.6 | | | | |
| 3651 | 16814 | | 0.84 | | | | |
| 3747 | 16908 | 29812 | 0.98 | | | | |
| 4057 | 17213 | | 0.94 | | | | |
| 4314 | 17457 | 30445 | 1.55 | | | | |
| 4377 | 17520 | 30500 | 6.88 | | | | |
| 4396 | 17539 | 30519 | 0.87 | | | | |
| 4396 | 17539 | 30520 | 0.87 | | | | |
| 4457 | 17597 | | 1.69 | | | | |
| 4512 | 17651 | 30639 | 0.61 | | | | |
| 4958 | 18088 | 31084 | 1.86 | | | | |
| 5002 | 18131 | | 0.6 | | | | |
| 5157 | 18279 | 31244 | 5.14 | | | | |
| 5166 | 18290 | 31255 | 1.24 | | | | |
| 5371 | 18574 | 31442 | 1.76 | | | | |
| 5371 | 18574 | 31443 | 1.76 | | | | |
| 5536 | 18735 | | 4.12 | | | | |
| 5714 | 18907 | | 7.26 | | | | |
| 5786 | 18735 | | 3.31 | | | | |

Page 2 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|-------------------------------|--|
| 5853 | 18048 | 32354 | 4.22 | | | |
| 6148 | 28820 | 32888 | 1.61 | | | |
| 6174 | 16350 | 32606 | 1.92 | | | |
| 6548 | 19708 | | 1.01 | | | |
| 6679 | 19838 | 33226 | 1.25 | | | |
| 6679 | 19838 | 33227 | 1.25 | | | |
| 7275 | 20358 | 33812 | 1.42 | | | |
| 7275 | 20358 | 33813 | 1.42 | | | |
| 7569 | 20841 | 34117 | 1.18 | | | |
| 7569 | 20841 | 34118 | 1.18 | | | |
| 8251 | 21333 | 34851 | 1.44 | | | |
| 8682 | 21762 | 35296 | 1.14 | | | |
| 9061 | 22140 | 35884 | 0.76 | | | |
| 9061 | 22140 | 35885 | 0.76 | | | |
| 9734 | 22788 | 36373 | 3.82 | | | |
| 9868 | 23007 | 36802 | 0.56 | | | |
| 10086 | 23124 | 36725 | 1.51 | | | |
| 10229 | 23264 | 36853 | 0.88 | | | |
| 10843 | 23677 | 37286 | 0.74 | | | |
| 10843 | 23677 | 37287 | 0.74 | | | |
| 10922 | 24005 | | 2.32 | | | |
| 11280 | 24346 | | 1.76 | | | |
| 11348 | 24410 | 38063 | 2.79 | | | |
| 11641 | 24721 | 38414 | 1.73 | | | |
| 11749 | 23935 | 37561 | 1.38 | | | |
| 11749 | 23935 | 37562 | 1.38 | | | |
| 11792 | 24792 | | 2.09 | | | |
| 12057 | 25038 | 38746 | 1.58 | | | |
| 12623 | 25419 | | 2.08 | | | |
| 12967 | 25828 | 31980 | 1.5 | | | |
| 6177 | 19353 | 32700 | 10.82 | 9.8E+00 AJ239028.1 | NT | Homo sapiens LSS gene, partial, exons 15, 16, 17 and 18 |
| 8195 | 21277 | 34800 | 1.5 | 9.8E+00 U32716.1 | NT | Haemophilus influenzae Rd section 31 of 183 of the complete genome |
| 9844 | 22983 | 36576 | 0.48 | 9.8E+00 Y18930.1 | NT | Sulfolobus solfataricus 281 kb genomic DNA fragment, strain P2 |
| 9844 | 22983 | 36576 | 0.48 | 9.8E+00 Y18930.1 | NT | Sulfolobus solfataricus 281 kb genomic DNA fragment, strain P2 |

Page 3 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 7139 | 20274 | 33714 | 0.82 | 9.0E+00 | AF065630.1 | NT | Gallus gallus ornithine transcarbamylase (OTC) gene, exon 1 |
| 7139 | 20274 | 33715 | 0.82 | 9.0E+00 | AF065630.1 | NT | Gallus gallus ornithine transcarbamylase (OTC) gene, exon 1 |
| 10836 | 23670 | 37279 | 0.93 | 9.0E+00 | AF242432.1 | NT | Mus musculus Naip3 gene, exon 1; neuronal apoptosis inhibitory protein 1 (Naip1) and general transcription factor IIR polypeptide 2 (Gtf2h2) genes, complete cds |
| 10836 | 23670 | 37280 | 0.93 | 9.0E+00 | AF242432.1 | NT | Mus musculus Naip3 gene, exon 1; neuronal apoptosis inhibitory protein 1 (Naip1) and general transcription factor IIR polypeptide 2 (Gtf2h2) genes, complete cds |
| 2731 | 16849 | 28959 | 0.97 | 9.4E+00 | L11433.1 | NT | Dengue virus type 3 membrane protein (prM/M)/envelope glycoprotein (E) polypeptide mRNA, partial cds |
| 2731 | 16849 | 28960 | 0.97 | 9.4E+00 | L11433.1 | NT | Dengue virus type 3 membrane protein (prM/M)/envelope glycoprotein (E) polypeptide mRNA, partial cds |
| 2890 | 18108 | 29182 | 3.08 | 9.4E+00 | AB043765.1 | NT | Mus musculus AT3 gene for antithrombin, complete cds |
| 8290 | 21372 | 34893 | 1.08 | 9.3E+00 | AF130690.1 | NT | Homo sapiens ectodysplasin-A receptor protein (EDAR) gene, exons 2, 3, and 4 |
| 9204 | 22282 | 35822 | 3.03 | 9.3E+00 | P11210 | SWISSPROT | IMMEDIATE-EARLY PROTEIN 1 (IE1) (IMMEDIATE-EARLY PHOSPHOPROTEIN PP89) |
| 7625 | 20595 | 34171 | 0.6 | 9.2E+00 | Q61767 | SWISSPROT | 3 BETA-HYDROXYSTEROID DEHYDROGENASE TYPE IV (3BETA-HSD IV) (3-BETA-HYDROXY-DELTA(5)-STEROID DEHYDROGENASE) (3-BETA-HYDROXY-6-ENE STEROID DEHYDROGENASE) (PROGESTERONE REDUCTASE) |
| 9411 | 18813 | 31596 | 2.59 | 9.1E+00 | AF095609.1 | NT | Leuciscus cephalus orientalis cytochrome b (cyt b) gene, partial cds; mitochondrial gene for mitochondrial product |
| 6411 | 18813 | 31597 | 2.59 | 9.1E+00 | AF095609.1 | NT | Leuciscus cephalus orientalis cytochrome b (cyt b) gene, partial cds; mitochondrial gene for mitochondrial product |
| 9630 | 22855 | 32681 | 1 | 8.0E+00 | P09241 | SWISSPROT | RHODOPSIN |
| 8160 | 18336 | 32681 | 5.15 | 8.9E+00 | BE971806.1 | EST_HUMAN | 601851038R1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:3934592 3' |
| 6510 | 18875 | 33044 | 2.03 | 8.7E+00 | AB019788.1 | NT | Cynops pyrrhogaster Cpt1b3 premature mRNA, partial cds |
| 6510 | 18875 | 33045 | 2.03 | 8.7E+00 | AB019788.1 | NT | Cynops pyrrhogaster Cpt1b3 premature mRNA, partial cds |
| 453 | 13849 | 26855 | 1.79 | 8.4E+00 | 5031804 | NT | Homo sapiens insulin receptor substrate 1 (IRS1) mRNA |
| 9664 | 21097 | 34611 | 2.09 | 8.1E+00 | AJ131719.1 | NT | Zea mays mRNA for legumain-like protease (see2a) |
| 11443 | 24504 | | 1.96 | 8.0E+00 | P41820 | SWISSPROT | BREFELDIN A RESISTANCE PROTEIN |
| 8345 | 21425 | | 0.98 | 7.6E+00 | Z21489.1 | NT | African swine fever virus NP1450L gene encoding RNA polymerase largest subunit |
| 7501 | 20576 | | 1.85 | 7.5E+00 | AL445085.1 | NT | Thermoplasma acidophilum complete genome; segment 3/5 |
| 8566 | 21637 | 35174 | 1.42 | 7.6E+00 | P35441 | SWISSPROT | THROMBOSPONDIN 1 PRECURSOR |
| 8558 | 21637 | 35175 | 1.42 | 7.5E+00 | P35441 | SWISSPROT | THROMBOSPONDIN 1 PRECURSOR |
| 5921 | 18108 | 32421 | 3.6 | 7.4E+00 | BF700517.1 | EST_HUMAN | 602128876F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4285508 5' |
| 8953 | 22032 | 35573 | 3 | 7.4E+00 | P04829 | SWISSPROT | HISTIDINE-RICH GLYCOPROTEIN PRECURSOR |
| 8953 | 22032 | 35574 | 3 | 7.4E+00 | P04829 | SWISSPROT | HISTIDINE-RICH GLYCOPROTEIN PRECURSOR |

Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 3042 | 18218 | 28238 | 3.41 | 7.2E+00 | L12051.1 | NT | Lycopersicon esculentum Mill. GTPase (SAR2) mRNA, complete cds |
| 3042 | 16218 | 28238 | 3.41 | 7.2E+00 | L12051.1 | NT | Lycopersicon esculentum Mill. GTPase (SAR2) mRNA, complete cds |
| 7174 | 20307 | 33760 | 1.07 | 7.2E+00 | BE176000.1 | EST_HUMAN | RCO-HT0813-200300-031-407 HT0813 Homo sapiens cDNA |
| 7289 | 20381 | 33838 | 1.22 | 7.1E+00 | P28168 | SWISSPROT | ZINC-FINGER PROTEIN 1 (ZINC-FINGER HOMEODOMAIN PROTEIN 1) |
| 7289 | 20381 | 33839 | 1.22 | 7.1E+00 | P28168 | SWISSPROT | ZINC-FINGER PROTEIN 1 (ZINC-FINGER HOMEODOMAIN PROTEIN 1) |
| 9798 | 22838 | | 9.23 | 7.1E+00 | AL161595.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 91 |
| 11688 | 24745 | 38437 | 2.44 | 7.1E+00 | P05850 | SWISSPROT | HYPOTHETICAL 17.3 KDA PROTEIN IN MRDA-PHPB INTERGENIC REGION |
| 10187 | 23224 | 36818 | 2.76 | 7.0E+00 | P48810 | SWISSPROT | ARGININE KINASE (AK) |
| 11628 | 24584 | 38261 | 1.52 | 7.0E+00 | O22469 | SWISSPROT | WD-40 REPEAT PROTEIN MS13 |
| 8478 | 21559 | 35093 | 3.17 | 6.9E+00 | P35979 | SWISSPROT | 60S RIBOSOMAL PROTEIN L4 (L2) |
| 10559 | 23594 | 37200 | 1.12 | 6.8E+00 | P44834 | SWISSPROT | DNA MISMATCH REPAIR PROTEIN MUTS |
| 10570 | 23614 | 37219 | 0.6 | 6.8E+00 | P34228 | SWISSPROT | SKT5 PROTEIN |
| 8092 | 21174 | 34688 | 1.64 | 6.8E+00 | W03412.1 | EST_HUMAN | z070t11.1 Scars melanocyte 2N18-IM Homo sapiens cDNA clone IMAGE:281860 5' |
| 8092 | 21174 | 34689 | 1.64 | 6.8E+00 | W03412.1 | EST_HUMAN | z070t11.1 Scars melanocyte 2N18-IM Homo sapiens cDNA clone IMAGE:281860 5' |
| 8333 | 22409 | | 1.62 | 6.8E+00 | P36307 | SWISSPROT | OUTER CAPSID PROTEIN VP4 (HEMAGGLUTININ) (OUTER LAYER PROTEIN VP4) [CONTAINS: OUTER CAPSID PROTEINS VPS AND VP8] |
| 10413 | 23448 | 37053 | 3.6 | 6.8E+00 | Q09570 | SWISSPROT | HYPOTHETICAL 157.0 KDA PROTEIN C38C10.5 IN CHROMOSOME III |
| 8398 | 18600 | | 0.86 | 6.8E+00 | Q89028 | SWISSPROT | CATECHOL-O-METHYLTRANSFERASE, SOLUBLE FORM (S-COMT) |
| 6676 | 19834 | 33223 | 0.86 | 6.8E+00 | BF672121.1 | EST_HUMAN | 602162573F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4293427 5' |
| 8234 | 28228 | | 0.55 | 6.8E+00 | P51825 | SWISSPROT | AF-4 PROTEIN (FEL PROTEIN) |
| 10279 | 23314 | 36912 | 2.14 | 6.8E+00 | Q82E07 | SWISSPROT | URIDYLATE KINASE (UK) (URIDINE MONOPHOSPHATE KINASE) (UMP KINASE) |
| 10279 | 23314 | 36913 | 2.14 | 6.8E+00 | Q82E07 | SWISSPROT | URIDYLATE KINASE (UK) (URIDINE MONOPHOSPHATE KINASE) (UMP KINASE) |
| 10843 | 23876 | 37496 | 0.47 | 6.8E+00 | H28330.1 | EST_HUMAN | ym60f08.ct Scars infant brain 1N1B Homo sapiens cDNA clone IMAGE:52737 3' |
| 11393 | 24454 | | 1.48 | 6.8E+00 | Q10309 | SWISSPROT | PROBABLE CATION-TRANSPORTING ATPASE C6C3.05C |
| 9382 | 22457 | 36020 | 7 | 6.8E+00 | P03374 | SWISSPROT | ENV POLYPROTEIN [CONTAINS: COAT PROTEIN GP62 COAT PROTEIN GP36] |
| 10512 | 23547 | 37158 | 0.52 | 6.8E+00 | BE866001.1 | EST_HUMAN | 801678435F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3960869 5' |
| 9843 | 22892 | 36574 | 1.34 | 6.2E+00 | AY010601.1 | NT | Schizopyllum commune unknown mRNA |
| 10787 | 23820 | 37444 | 0.7 | 6.2E+00 | 6754621 | NT | Mus musculus mannosidase 2, alpha B1 (Man2b1), mRNA |
| 7181 | 20313 | 33766 | 1.6 | 6.0E+00 | BE780163.1 | EST_HUMAN | 601468031F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3871303 5' |
| 10021 | 23059 | 36055 | 0.49 | 6.0E+00 | AP000003.1 | NT | Pyrococcus horikoshii OT3 genome DNA, 1166001-1485000 nt, position (87) |
| 10732 | 23765 | 37373 | 0.82 | 6.0E+00 | AE001862.1 | NT | Dalhousie radiolurans R1 section 1 of 2 of the complete chromosome 2 |
| 10732 | 23765 | 37374 | 0.82 | 6.0E+00 | AE001862.1 | NT | Dalhousie radiolurans R1 section 1 of 2 of the complete chromosome 2 |
| 8650 | 18808 | 33197 | 7.14 | 6.0E+00 | AF168142.1 | NT | Mus musculus mixed lineage kinase 3 (Mlk3) and two pore domain K+ channel subunit (Kcnk8) genes, complete cds |

Table 4
Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Description |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 11933 | 24919 | | 3.02 | 5.9E+00 | BE968630.1 | EST_HUMAN | 801946279F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3830451 5' |
| 3613 | 16777 | | 1.15 | 6.8E+00 | 7681557 | NT | Homo sapiens DESC1 protein (DESC1), mRNA |
| 7312 | 20394 | 33865 | 0.74 | 6.7E+00 | AF302046.1 | NT | Mus musculus immunoglobulin scavenger receptor IgSR mRNA, complete cds |
| 7312 | 20394 | 33866 | 0.74 | 6.7E+00 | AF302046.1 | NT | Mus musculus immunoglobulin scavenger receptor IgSR mRNA, complete cds |
| 7742 | 20803 | | 1.34 | 5.0E+00 | P75080 | SWISSPROT | DNA POLYMERASE III, ALPHA CHAIN POLC-TYPE (POLII) |
| 11289 | 24355 | 37896 | 2.03 | 5.0E+00 | AB027305.1 | NT | Cyprinus carpio mRNA for lysozyme C, complete cds |
| 11289 | 24355 | 37897 | 2.03 | 5.0E+00 | AB027305.1 | NT | Cyprinus carpio mRNA for lysozyme C, complete cds |
| 11765 | 23951 | 37681 | 2.62 | 6.0E+00 | Q55276 | SWISSPROT | LYCOPENE BETA CYCLASE |
| 6381 | 19550 | 32909 | 0.74 | 5.0E+00 | P47447 | SWISSPROT | HEAT-INDUCIBLE TRANSCRIPTION REPRESSOR HRCA |
| 8952 | 23021 | | 0.66 | 6.0E+00 | P13983 | SWISSPROT | EXTENSIN PRECURSOR (CELL WALL HYDROXYPROLINE-RICH GLYCOPROTEIN) |
| 11018 | 24087 | | 1.46 | 5.0E+00 | AF175425.1 | NT | Mus musculus DNA methyltransferase (Dnmt1) gene, exons 30, 31, and 32 |
| 11763 | 23949 | 37578 | 2.32 | 6.0E+00 | P11990 | SWISSPROT | PNEUMOLYSIN (THIOL-ACTIVATED CYTOLYSIN) |
| 7069 | 20122 | 35536 | 1.11 | 5.4E+00 | X02212.1 | NT | Chicken alpha-cardiac actin gene |
| 7069 | 20122 | 35537 | 1.11 | 5.4E+00 | X02212.1 | NT | Chicken alpha-cardiac actin gene |
| 7484 | 20556 | | 1.04 | 5.4E+00 | Q98435 | SWISSPROT | NEL PROTEIN PRECURSOR (NEL-RELATED PROTEIN 2) |
| 8013 | 21063 | 34575 | 0.74 | 5.4E+00 | P50391 | SWISSPROT | NEUROPEPTIDE Y RECEPTOR TYPE 4 (NPY4R) (PANGREATIC POLYPEPTIDE RECEPTOR 1) (PP1) |
| 8054 | 21137 | | 1.62 | 5.4E+00 | Q91062 | SWISSPROT | VITELLOGENIN PRECURSOR (VTG) (CONTAINS: LIPOVITELLIN LV-1N; LIPOVITELLIN LV-1C; |
| 8999 | 22076 | 35618 | 0.93 | 5.4E+00 | P40379 | SWISSPROT | LIPOVITELLIN LV-2) |
| 8999 | 22076 | 35619 | 0.93 | 5.4E+00 | P40379 | SWISSPROT | REP1 PROTEIN |
| 10242 | 23277 | 36870 | 1.45 | 5.4E+00 | Q17094 | SWISSPROT | REP1 PROTEIN |
| 10242 | 23277 | 36871 | 1.45 | 5.4E+00 | Q17094 | SWISSPROT | RHODOPSIN |
| 4908 | 18036 | 31024 | 1.47 | 5.3E+00 | L43126.1 | NT | RHODOPSIN |
| 6617 | 19777 | | 0.7 | 5.3E+00 | P41779 | SWISSPROT | Bovine immunodeficiency-like virus surface envelope gene, 5' end of cds |
| 8270 | 21352 | | 3.39 | 6.3E+00 | P54068 | SWISSPROT | HOMEOBOX PROTEIN CSH-20 |
| 8184 | 22282 | | 0.72 | 5.3E+00 | AB034990.1 | NT | DNA POLYMERASE GAMMA (MITOCHONDRIAL DNA POLYMERASE CATALYTIC SUBUNIT) |
| 11928 | 24914 | 38816 | 1.51 | 5.3E+00 | Q27905 | SWISSPROT | Homo sapiens HERPUD1 gene for stress protein Herp, complete cds |
| 5580 | 18775 | | 1.16 | 5.2E+00 | BE184840.1 | EST_HUMAN | PROBABLE ANTIBACTERIAL PEPTIDE POLYPEPTIDE PRECURSOR |
| 10583 | 23618 | | 0.96 | 5.2E+00 | AF248070.1 | NT | QV4-HT0691-270400-186-f09 HT0691 Homo sapiens cDNA |
| 11470 | 24529 | | 1.93 | 6.2E+00 | Q10136 | SWISSPROT | Drosophila orientacea R1B retrotransposable element reverse transcriptase gene, partial cds |
| 9162 | 22240 | 35784 | 0.94 | 5.1E+00 | O16005 | SWISSPROT | HYPOPHOSPHATASE 1 |
| 10030 | 23068 | 36687 | 1.33 | 5.1E+00 | P09182 | SWISSPROT | RHODOPSIN |
| 8415 | 19534 | 32946 | 0.74 | 6.0E+00 | BF310443.1 | EST_HUMAN | COLICIN N IMMUNITY PROTEIN (MICROCIN N IMMUNITY PROTEIN) |
| 10397 | 23432 | | 0.7 | 5.0E+00 | BF303561.1 | EST_HUMAN | 801894910F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4124114 5' |

Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 10645 | 23679 | 37289 | 2.89 | 5.0E+00 | AF162445.2 | NT | Canis familiaris skeletal muscle chloride channel CIC-1 (CLCN1) mRNA, complete cds |
| 11569 | 24624 | 38304 | 7.24 | 5.0E+00 | Z83850.1 | NT | Mycobacterium tuberculosis H37Rv complete genome; segment 103/162 |
| 10437 | 23472 | | 0.76 | 4.9E+00 | U81328.1 | NT | Human hereditary haemochromatosis region, histone 2A-like protein gene, hereditary haemochromatosis (HLA-H) gene, RoRet gene, and sodium phosphate transporter (NPT3) gene, complete cds |
| 4172 | 17322 | | 12.39 | 4.8E+00 | AF185253.1 | NT | Eumeces australis histone H3 (H3) gene, partial cds |
| 8348 | 21429 | 34953 | 0.6 | 4.8E+00 | BF367009.1 | EST_HUMAN | RC3-GN0042-100800-011-c10 GN0042 Homo sapiens cDNA |
| 8738 | 21817 | | 4.92 | 4.8E+00 | AW750087.1 | EST_HUMAN | PMD-BT0547-310100-002-b04 BT0547 Homo sapiens cDNA |
| 300 | 13517 | 26550 | 3.04 | 4.7E+00 | BF240552.1 | EST_HUMAN | 601876654F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4099716 5' |
| 301 | 13517 | 26550 | 1.85 | 4.7E+00 | BF240552.1 | EST_HUMAN | 601876654F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4099716 5' |
| 3347 | 18520 | 28594 | 1.02 | 4.7E+00 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C060 |
| 7862 | 21012 | 34522 | 0.59 | 4.6E+00 | U87569.1 | NT | Methanococcus jannaschii section 111 of 150 of the complete genome |
| 9397 | 22471 | 35036 | 1.1 | 4.6E+00 | BE846437.1 | EST_HUMAN | 788g10.x1 NCI CGAP CLL1 Homo sapiens cDNA clone IMAGE:3282098 3' similar to TR:075140 O75140 KIAA0845 PROTEIN; contains element PTR5 repetitive element |
| 9397 | 22471 | 35037 | 1.1 | 4.6E+00 | BE846437.1 | EST_HUMAN | 788g10.x1 NCI CGAP CLL1 Homo sapiens cDNA clone IMAGE:3282098 3' similar to TR:075140 O75140 KIAA0845 PROTEIN; contains element PTR5 repetitive element |
| 10600 | 23635 | | 0.63 | 4.6E+00 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 7947 | 20997 | | 0.7 | 4.5E+00 | AF128177.1 | NT | Issachanka orientalis inositolphosphorylceramide synthase (IPC1) gene, complete cds |
| 11604 | 24892 | 38503 | 1.87 | 4.5E+00 | AE001044.1 | NT | Archaeoglobus fulgidus section 63 of 172 of the complete genome |
| 12058 | 25039 | 38747 | 1.53 | 4.5E+00 | BF688841.1 | EST_HUMAN | 602123238F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4280216 5' |
| 3105 | 16281 | 29236 | 0.84 | 4.4E+00 | BF330893.1 | EST_HUMAN | 602072595F1 NCI CGAP Bmi67 Homo sapiens cDNA clone IMAGE:4215284 5' |
| 3105 | 16281 | 29297 | 0.84 | 4.4E+00 | BF330893.1 | EST_HUMAN | 602072595F1 NCI CGAP Bmi67 Homo sapiens cDNA clone IMAGE:4215284 5' |
| 6331 | 18502 | | 1.58 | 4.4E+00 | X13414.1 | NT | Murine I gene for MHC class II(a) associated invariant chain |
| 6245 | 19419 | | 0.77 | 4.3E+00 | AF056978.1 | NT | Homo sapiens neutrophil collagenase (C10A) gene, promoter region and 5'UTR |
| 7598 | 20686 | 34142 | 2.53 | 4.3E+00 | Y13402.1 | NT | Plasmodium falciparum R28R+var1 gene, exon 1 |
| 7782 | 20846 | 34341 | 0.68 | 4.3E+00 | AE001222.1 | NT | Troponin pallidum section 38 of 87 of the complete genome |
| 11101 | 24174 | 37809 | 14.74 | 4.3E+00 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 5634 | 18828 | | 4.1 | 4.2E+00 | P16444 | SWISSPROT | MICROSOMAL DIPEPTIDASE PRECURSOR (MDP) (DEHYDROPEPTIDASE-1) (RENAL DIPEPTIDASE) (RDP) |
| 5711 | 18904 | 32169 | 1.07 | 4.2E+00 | P51826 | SWISSPROT | LAF-4 PROTEIN (LYMPHOID NUCLEAR PROTEIN) |
| 6880 | 19070 | | 0.71 | 4.2E+00 | O27830 | SWISSPROT | PUTATIVE ATP-DEPENDENT HELICASE MTH1802 |
| 6911 | 20226 | 33657 | 1.67 | 4.2E+00 | P13983 | SWISSPROT | EXTENSIN PRECURSOR (CELL WALL HYDROXYPROLINE-RICH GLYCOPROTEIN) |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6911 | 20226 | 33658 | 1.67 | 4.2E+00 | P13983 | SWISSPROT | EXTENSIN PRECURSOR (CELL WALL HYDROXYPROLINE-RICH GLYCOPROTEIN) |
| 9160 | 22238 | 35783 | 5.3 | 4.2E+00 | A1809013.1 | EST_HUMAN | wf67g03.x1 Scarses_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2360692 3' |
| 10122 | 23160 | 38760 | 1.03 | 4.2E+00 | P31368 | SWISSPROT | NUBIN PROTEIN (TWIN PROTEIN) (POU DOMAIN PROTEIN 1) (PDM-1) (DPOU-19) (DOCT1) |
| 10352 | 23387 | | 0.47 | 4.2E+00 | P40888 | SWISSPROT | HEXOSE TRANSPORTER HXT8 |
| 7261 | 20344 | 33798 | 0.98 | 4.1E+00 | BE253688.1 | EST_HUMAN | 601110727F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3351534 5' |
| 7839 | 20894 | 34396 | 7.66 | 4.1E+00 | O23810 | SWISSPROT | YY1 PROTEIN PRECURSOR |
| 7860 | 21010 | | 0.64 | 4.1E+00 | AB041623.1 | NT | Palinopepten yessoensis mRNA for calcineurin A, complete cds |
| 7863 | 21013 | 34523 | 3.8 | 4.1E+00 | P28984 | SWISSPROT | GENE 68 PROTEIN |
| 7993 | 21013 | 34524 | 3.8 | 4.1E+00 | P28984 | SWISSPROT | GENE 68 PROTEIN |
| 8101 | 21183 | 34703 | 2.88 | 4.1E+00 | U57503.1 | NT | Pan troglodytes novel repetitive solo LTR element in the RNUL2 locus |
| 9740 | 22805 | 38381 | 0.61 | 4.1E+00 | P11253 | SWISSPROT | 50S RIBOSOMAL PROTEIN L4 |
| 9873 | 22813 | 36498 | 2.25 | 4.1E+00 | BF692425.1 | EST_HUMAN | 602247838F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:433209 5' |
| 10370 | 23405 | | 0.55 | 4.1E+00 | AJ23273.1 | NT | Rickettsia prowazekii strain Madrid E, complete genome, segment 4/4 |
| 10514 | 23548 | | 0.52 | 4.1E+00 | P46414 | SWISSPROT | CYCLIN-DEPENDENT KINASE INHIBITOR 1B (CYCLIN-DEPENDENT KINASE INHIBITOR P27) |
| 11124 | 24196 | | 2.15 | 4.1E+00 | P09710 | SWISSPROT | (P27KIP1) |
| 11214 | 24283 | | 12.25 | 4.1E+00 | BE885880.1 | EST_HUMAN | HYPOTHETICAL PROTEIN HLF1 |
| 3635 | 16798 | | 0.72 | 4.0E+00 | P38228 | SWISSPROT | GLC7-INTERACTING PROTEIN 1 |
| 5575 | 20130 | 33546 | 0.93 | 4.0E+00 | O62863 | SWISSPROT | SUCRASE-ISOMALTASE, INTESTINAL [CONTAINS: SUCRASE; ISOMALTASE] |
| 5575 | 20130 | 33547 | 0.93 | 4.0E+00 | O62863 | SWISSPROT | SUCRASE-ISOMALTASE, INTESTINAL [CONTAINS: SUCRASE; ISOMALTASE] |
| 7077 | 20130 | 33546 | 0.99 | 4.0E+00 | O62863 | SWISSPROT | SUCRASE-ISOMALTASE, INTESTINAL [CONTAINS: SUCRASE; ISOMALTASE] |
| 7339 | 20419 | 33881 | 1 | 4.0E+00 | O33010 | SWISSPROT | CELL DIVISION PROTEIN FTSY HOMOLOG |
| 9074 | 22153 | 35697 | 0.49 | 4.0E+00 | Q14167 | SWISSPROT | HYPOTHETICAL PROTEIN KIAA0744 |
| 10148 | 23186 | 36783 | 0.65 | 4.0E+00 | O61309 | SWISSPROT | NITRIC-OXIDE SYNTHASE (NOS, TYPE I) (NEURONAL NOS) (N-NOS) (NNOS) |
| 10368 | 23403 | 37014 | 0.6 | 4.0E+00 | AE002132.1 | NT | Ureaplasma urealyticum section 33 of 59 of the complete genome |
| 10464 | 23499 | 37111 | 0.45 | 4.0E+00 | Q00511 | SWISSPROT | URICASE (URATE OXIDASE) |
| 10464 | 23499 | 37112 | 0.45 | 4.0E+00 | Q00511 | SWISSPROT | URICASE (URATE OXIDASE) |
| 11762 | 23948 | 37577 | 1.59 | 4.0E+00 | P14546 | SWISSPROT | CYTOCHROME C OXIDASE POLYPEPTIDE III |
| 11843 | 24832 | 38524 | 2.98 | 4.0E+00 | P07684 | SWISSPROT | GENOME POLYPROTEIN [CONTAINS: CAPSID PROTEIN C (CORE PROTEIN); MATRIX PROTEIN (ENVELOPE GLYCOPROTEIN M); MAJOR ENVELOPE PROTEIN E; NONSTRUCTURAL PROTEINS (NS1, NS2A, NS2B, NS4A AND NS4B); HELICASE (NS3); RNA-DIRECTED RNA POLYMERASE (NS5)] |

Table 4
Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Description |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 11943 | 24832 | 38525 | 2.98 | 4.0E+00 | P07584 | SWISSPROT | GENOME POLYPROTEIN [CONTAINS: CAPSID PROTEIN C (CORE PROTEIN); MATRIX PROTEIN (ENVELOPE GLYCOPROTEIN M); MAJOR ENVELOPE PROTEIN E; NONSTRUCTURAL PROTEINS NS1, NS2A, NS2B, NS4A AND NS4B; HELICASE (NS3); RNA-DIRECTED RNA POLYMERASE (NS6)] |
| 12133 | 25113 | 38817 | 1.34 | 4.0E+00 | P35611 | SWISSPROT | ERYTHROCYTE ADDUCIN ALPHA SUBUNIT |
| 3591 | 16765 | 29770 | 6 | 3.9E+00 | XG4518.1 | NT | N.tabacum chitinase gene 50 for class I chitinase C |
| 4441 | 17681 | | 0.87 | 3.9E+00 | AF055466.1 | NT | Mus musculus seminal vesicle secretory protein 99 (MSVSP99) gene, promoter region |
| 5776 | 18967 | 32270 | 2.92 | 3.9E+00 | BE814357.1 | EST_HUMAN | MRO-BN0070-300500-028-105 BND0070 Homo sapiens cDNA |
| 5776 | 18967 | 32271 | 2.92 | 3.9E+00 | BE814357.1 | EST_HUMAN | MRO-BN0070-300500-028-105 BND0070 Homo sapiens cDNA |
| 6772 | 19927 | 33322 | 0.93 | 3.9E+00 | AF298208.1 | NT | Dietosolium discoidium non-LTR retrotransposon TREG-B, polyprotein (gag) and group-specific antigen (pol) genes, complete cds |
| 6829 | 19982 | 33389 | 0.7 | 3.9E+00 | U91328.1 | NT | Human hereditary haemochromatosis region, histone 2A-like protein gene, hereditary haemochromatosis (HLA-H) gene, Ror1 gene, and sodium phosphate transporter (NPT3) gene, complete cds |
| 7013 | 20149 | 33670 | 4.43 | 3.9E+00 | P39289 | SWISSPROT | HYPOTHETICAL TRANSCRIPTIONAL REGULATOR IN AIDS-RPSF INTERGENIC REGION |
| 7819 | 20592 | 34066 | 4.26 | 3.9E+00 | M23907.1 | NT | Human MHC class II lymphocyte antigen (DP-w4-beta-1) gene, exon 2 |
| 8812 | 21593 | 35128 | 2.44 | 3.9E+00 | XG5865.1 | NT | X.laedis mRNA for M4 mucarhinic receptor |
| 11874 | 23502 | 37624 | 2.77 | 3.9E+00 | Y18000.1 | NT | Homo sapiens NF2 gene |
| 2893 | 16813 | | 1.63 | 3.9E+00 | AE001562.1 | NT | Helicobacter pylori, strain J99 section 123 of 132 of the complete genome |
| 6520 | 19985 | 33057 | 1.05 | 3.9E+00 | Q57830 | SWISSPROT | HYPOTHETICAL PROTEIN M10385 |
| 8927 | 21707 | 35244 | 1.12 | 3.9E+00 | D44728.1 | EST_HUMAN | HUMSUPY185 Human brain cDNA Homo sapiens cDNA clone 148 |
| 9899 | 23037 | | 0.6 | 3.9E+00 | AL390061.1 | NT | Streptococcus oralis partial xpt gene for xanthine phosphoribosyltransferase, strain NCTC7864 |
| 12120 | 25100 | | 11.66 | 3.9E+00 | 8631284 | NT | Melanoplus eugeniipes entomovirus, complete genome |
| 4129 | 17282 | 30277 | 12.79 | 3.7E+00 | AL161538.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 39 |
| 7316 | 20398 | | 0.83 | 3.7E+00 | AL445065.1 | NT | Thermoplasma acidophilum complete genome, segment 3/5 |
| 9378 | 22454 | 36017 | 1.04 | 3.7E+00 | U43541.1 | NT | Mus musculus laminin beta 2 gene, exons 17-33, and complete cds |
| 11715 | 24755 | 38450 | 2.11 | 3.7E+00 | BF669279.1 | EST_HUMAN | 602120551F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4277748 5' |
| 11715 | 24755 | 38451 | 2.11 | 3.7E+00 | BF669279.1 | EST_HUMAN | 602120551F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4277748 5' |
| 12280 | 25196 | | 1.87 | 3.7E+00 | AB013746.3 | NT | Gallus gallus mRNA for hypoxia-inducible factor-1 alpha, complete cds |
| 608 | 13795 | 28814 | 3.76 | 3.9E+00 | AV761055.1 | EST_HUMAN | AV761055 MDS Homo sapiens cDNA clone MDSBUE10 5' |
| 6369 | 18572 | 31440 | 0.78 | 3.9E+00 | BF316316.1 | EST_HUMAN | 601901866F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4131018 5' |
| 8749 | 21828 | 35364 | 0.86 | 3.9E+00 | D12367.1 | EST_HUMAN | HUM000TB08 Liver HepG2 cell line. Homo sapiens cDNA clone t808 |
| 8749 | 21828 | 35365 | 0.86 | 3.9E+00 | D12367.1 | EST_HUMAN | HUM000TB08 Liver HepG2 cell line. Homo sapiens cDNA clone t808 |
| 8847 | 21923 | 35464 | 3.67 | 3.9E+00 | AE004447.1 | NT | Pseudomonas aeruginosa PA01, section 8 of 528 of the complete genome |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 8847 | 21926 | 35485 | 3.67 | 3.6E+00 | AE004447.1 | NT | Pseudomonas aeruginosa PA01, section 8 of 529 of the complete genome |
| 9864 | 22904 | 36488 | 0.51 | 3.6E+00 | U72776.1 | NT | Ciconia episcopus cytochrome b gene, mitochondrial gene encoding mitochondrial protein, partial cds |
| 9864 | 22904 | 36489 | 0.51 | 3.6E+00 | U72775.1 | NT | Ciconia episcopus cytochrome b gene, mitochondrial gene encoding mitochondrial protein, partial cds |
| 11093 | 24167 | | 3.21 | 3.6E+00 | M86795.1 | NT | Cryptosporidium felis heat shock protein 70 (HSP70) gene, partial cds |
| 3319 | 16492 | 28508 | 1.04 | 3.5E+00 | AF221538.1 | NT | Borrelia burgdorferi (strain 25015) outer surface protein (ospC) gene, partial cds |
| 6123 | 18302 | | 1 | 3.6E+00 | L42898.1 | NT | My40c08.r1 Soares Infant Brain 1N1B Homd sapiens cDNA clone IMAGE:34940 5' |
| 8341 | 19511 | 32868 | 0.93 | 3.5E+00 | R19745.1 | EST_HUMAN | THROMBOXANE-A SYNTHASE (TXA SYNTHASE) (TXS) |
| 8681 | 21761 | | 0.56 | 3.5E+00 | P24557 | SWISSPROT | z86b04.s1 Stratagene HeLa cell c3 937216 Homo sapiens cDNA clone IMAGE:627055 3' similar to contains Alu repetitive element contains element MSRT1 repetitive element ; |
| 9232 | 22310 | 35851 | 0.99 | 3.6E+00 | AA190998.1 | EST_HUMAN | z86b04.s1 Stratagene HeLa cell c3 937216 Homo sapiens cDNA clone IMAGE:627055 3' similar to contains Alu repetitive element contains element MSRT1 repetitive element ; |
| 9232 | 22310 | 35852 | 0.99 | 3.5E+00 | AA190998.1 | EST_HUMAN | contains Alu repetitive element contains element MSRT1 repetitive element ; |
| 8594 | 22743 | 36313 | 1 | 3.5E+00 | AL161553.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 63 |
| 10739 | 23772 | 37383 | 0.58 | 3.5E+00 | AJ133723.1 | NT | Bos taurus mRNA for Ran-binding protein 2, partial |
| 1542 | 14694 | 27773 | 3.81 | 3.4E+00 | AF254577.1 | NT | Brassica napus RP85d mRNA, complete cds |
| 2644 | 16767 | 28982 | 1.07 | 3.4E+00 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 7518 | 20991 | 34068 | 2.33 | 3.4E+00 | P04052 | SWISSPROT | DNA-DIRECTED RNA POLYMERASE II LARGEST SUBUNIT |
| 7880 | 20932 | 34437 | 0.76 | 3.4E+00 | P04052 | SWISSPROT | DNA-DIRECTED RNA POLYMERASE II LARGEST SUBUNIT |
| 8876 | 21955 | | 0.77 | 3.4E+00 | U65408.1 | NT | Human alternatively spliced potassium channels ROM-K1, ROM-K2, ROM-K3, ROM-K4, ROM-K5, and ROM-K6 (KCNJ1) gene, complete cds |
| 9274 | 22350 | 35901 | 0.77 | 3.4E+00 | AJ229042.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22, segment 2/3 |
| 9312 | 22368 | 35939 | 0.54 | 3.4E+00 | AJ250567.1 | NT | Homo sapiens partial TM4SF2 gene for tetraspanin protein, exon 6 |
| 10471 | 23508 | 37119 | 3.35 | 3.4E+00 | AF019167.1 | NT | Saccharomyces cerevisiae MS91 gene, complete cds |
| 11822 | 24811 | 38508 | 2.06 | 3.4E+00 | L77570.1 | NT | Homo sapiens DiGeorge syndrome critical region, centromeric end |
| 6193 | 19369 | 32719 | 0.97 | 3.3E+00 | Q09669 | SWISSPROT | PUTATIVE IRON ALCOHOL DEHYDROGENASE |
| 6193 | 19369 | 32720 | 0.97 | 3.3E+00 | Q09669 | SWISSPROT | PUTATIVE IRON ALCOHOL DEHYDROGENASE |
| 6077 | 21159 | 34876 | 1.03 | 3.3E+00 | AF111168.2 | NT | Homo sapiens serine palmitoyl transferase, subunit I gene, complete cds; and unknown genes |
| 10861 | 23715 | 37321 | 1.04 | 3.3E+00 | AF001511.1 | NT | Bacillus halodurans genomic DNA, section 5/14 |
| 10881 | 23715 | 37322 | 1.04 | 3.3E+00 | AF001511.1 | NT | Bacillus halodurans genomic DNA, section 5/14 |
| 513 | 13707 | 26735 | 1.79 | 3.2E+00 | X98422.1 | NT | D. rerio zp-50 POU gene |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 4136 | 13707 | 26735 | 0.78 | 3.2E+00 | X96422.1 | NT | D,reflo zp-50 POU gene |
| 4860 | 17083 | 30971 | 0.95 | 3.2E+00 | 4502404 | NT | Homo sapiens cardioembryonic antigen-related cell adhesion molecule 1 (biliary glycoprotein) (CEACAM1), mRNA |
| 5686 | 18880 | 32170 | 1.10 | 3.2E+00 | P54924 | SWISSPROT | SQUALENE-HOPENE CYCLASE |
| 5686 | 18880 | 32171 | 1.16 | 3.2E+00 | P54924 | SWISSPROT | SQUALENE-HOPENE CYCLASE |
| 5719 | 18912 | 32207 | 2.49 | 3.2E+00 | P12783 | SWISSPROT | PHOSPHOGLYCERATE KINASE, CYTOSOLIC |
| 5719 | 18912 | 32208 | 2.49 | 3.2E+00 | P12783 | SWISSPROT | PHOSPHOGLYCERATE KINASE, CYTOSOLIC |
| 6436 | 19603 | 32966 | 1.91 | 3.2E+00 | P18931 | SWISSPROT | NADH-UBIQUINONE OXIDOREDUCTASE CHAIN 4 |
| 6436 | 19603 | 32967 | 1.91 | 3.2E+00 | P18931 | SWISSPROT | NADH-UBIQUINONE OXIDOREDUCTASE CHAIN 4 |
| 7781 | 20837 | 34330 | 0.86 | 3.2E+00 | P04276 | SWISSPROT | VON WILLEBRAND FACTOR PRECURSOR (VWF) |
| 7852 | 21002 | 34513 | 2.41 | 3.2E+00 | Y13655.1 | NT | Chlamydomonas reinhardtii chloroplast DNA for rps9, ycf4, ycf3, rps18 genes |
| 7852 | 21002 | 34514 | 2.41 | 3.2E+00 | Y13655.1 | NT | Chlamydomonas reinhardtii chloroplast DNA for rps9, ycf4, ycf3, rps18 genes |
| 9230 | 22308 | 36368 | 1.31 | 3.2E+00 | M36363.1 | NT | PERIPLASMIC [NIFE] HYDROGENASE SMALL SUBUNIT (NIFE HYDROGENLYASE SMALL CHAIN) |
| 9730 | 22795 | 36368 | 1.31 | 3.2E+00 | M36363.1 | NT | S.cerevisiae threonine deaminase (LV1) gene, complete cds |
| 10345 | 23360 | 36981 | 2.08 | 3.2E+00 | AB016081.2 | NT | Oryzias latipes OIGC8 gene for guanylyl cyclase C, complete cds |
| 12219 | 25169 | 36981 | 2.95 | 3.2E+00 | L33836.1 | NT | Sua scrofa choline acetyltransferase gene, promoter region |
| 5896 | 19181 | 32503 | 2.29 | 3.1E+00 | Q10135 | SWISSPROT | HYPOTHETICAL 142.6 KD PROTEIN C23E2.02 IN CHROMOSOME 1 |
| 7647 | 20619 | 34095 | 0.91 | 3.1E+00 | P92178 | SWISSPROT | TRIOSE PHOSPHATE/PHOSPHATE TRANSLOCATOR, NON-GREEN PLASTID PRECURSOR (CTPT) |
| 7804 | 20956 | 34330 | 1.09 | 3.1E+00 | AF003225.1 | NT | Bacillus alacophilus pectate lyase (pale) gene, complete cds |
| 8279 | 21361 | 34880 | 0.51 | 3.1E+00 | P40985 | SWISSPROT | PROBABLE UBIQUITIN-PROTEIN LIGASE HUL4 |
| 8801 | 21880 | 35417 | 5.14 | 3.1E+00 | P49894 | SWISSPROT | TYPE 1 IODOTHYRONINE DEIODINASE (TYPE-1 5DEIODINASE) (DIOI) (TYPE 1 DII) (5DI) |
| 8801 | 21880 | 35418 | 5.14 | 3.1E+00 | P49894 | SWISSPROT | TYPE 1 IODOTHYRONINE DEIODINASE (TYPE-1 5DEIODINASE) (DIOI) (TYPE 1 DII) (5DI) |
| 9459 | 22575 | | 3.7 | 3.1E+00 | Q14957 | SWISSPROT | GLUTAMATE [NMDA] RECEPTOR SUBUNIT EPSILON 3 PRECURSOR (N-METHYL D-ASPARTATE RECEPTOR SUBTYPE 2C) (NR2C) (NMDAR2C) |
| 9526 | 22591 | 36182 | 0.55 | 3.1E+00 | Q01149 | SWISSPROT | COLLAGEN ALPHA 2(I) CHAIN PRECURSOR |
| 10100 | 23138 | 36738 | 0.76 | 3.1E+00 | 7524769 | NT | Chlorella vulgaris chloroplast, complete genome |
| 10193 | 23290 | | 0.58 | 3.1E+00 | Q10126 | SWISSPROT | HYPOTHETICAL 56.3 KD PROTEIN F52C9.5 IN CHROMOSOME III |
| 10543 | 23578 | 37187 | 4.09 | 3.1E+00 | P49365 | SWISSPROT | DEOXYHYPUSINE SYNTHASE (DHS) |
| 11751 | 23937 | | 2.45 | 3.1E+00 | P33515 | SWISSPROT | GENOME POLYPROTEIN (CONTAINS: CAPSID PROTEIN C (CORE PROTEIN); MATRIX PROTEIN (ENVELOPE PROTEIN M); MAJOR ENVELOPE PROTEIN E; NONSTRUCTURAL PROTEINS NS1, NS2A, NS2B, NS4A AND NS4B; HELICASE (NS3); RNA-DIRECTED RNA POLYMERASE (NS6)) |
| 11771 | 24783 | | 2.49 | 3.1E+00 | S56660.1 | NT | retinoid acid nuclear receptor isoform beta 2 [mice, embryonal carcinoma cell line, PGC7-MZ1, mRNA, 2871 nt] |
| 13018 | 26870 | | 1.17 | 3.1E+00 | U77666.1 | NT | Brassica rapa pollen coat protein homolog (BAN103) gene, complete cds |

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| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 2899 | 18078 | 28005 | 0.95 | 3.0E+00 | 8923984 | NT | Homo sapiens hypothetical protein PRO0889 (PRO0889), mRNA |
| 6154 | 18854 | 31633 | 1.29 | 3.0E+00 | X63098.1 | NT | S. aureus genes encoding Sau961 DNA methyltransferase and Sau961 restriction endonuclease |
| 6686 | 19844 | 33234 | 0.82 | 3.0E+00 | X56037.1 | NT | Corynebacterium glutamicum thrC gene for threonine synthase (EC 4.2.99.2) |
| 6686 | 19844 | 33235 | 0.82 | 3.0E+00 | X56037.1 | NT | Corynebacterium glutamicum thrC gene for threonine synthase (EC 4.2.99.2) |
| 7306 | 20388 | | 11.21 | 3.0E+00 | P18406 | SWISSPROT | CYR61 PROTEIN PRECURSOR (3CH61) |
| 7346 | 20426 | | 0.7 | 3.0E+00 | Q13201 | SWISSPROT | ENDOTHELIAL CELL MULTIMERIN PRECURSOR |
| 8108 | 22187 | | 1.82 | 3.0E+00 | X67838.1 | NT | B. rapae DNA for myosinase |
| 10501 | 23536 | 37146 | 0.56 | 3.0E+00 | Q58605 | SWISSPROT | S-ADENOSYLMETHIONINE SYNTHETASE (METHIONINE ADENOSYLTRANSFERASE) (ADOMET SYNTHETASE) |
| 11259 | 24328 | 37667 | 4.96 | 3.0E+00 | P51842 | SWISSPROT | RETINAL GUANYLYL CYCLASE 2 PRECURSOR (GUANYLYL CYCLASE 2F, RETINAL) (RETGC-2) (ROD OUTER SEGMENT MEMBRANE GUANYLYL CYCLASE 2) (ROS-GC2) (GUANYLYL CYCLASE 2) (GC-F) |
| 11259 | 24328 | 37668 | 4.96 | 3.0E+00 | P51842 | SWISSPROT | RETINAL GUANYLYL CYCLASE 2 PRECURSOR (GUANYLYL CYCLASE 2F, RETINAL) (RETGC-2) (ROD OUTER SEGMENT MEMBRANE GUANYLYL CYCLASE 2) (ROS-GC2) (GUANYLYL CYCLASE 2) (GC-F) |
| 11885 | 24873 | 38570 | 1.37 | 3.0E+00 | P34194 | SWISSPROT | NADH-UBIQUINONE OXIDOREDUCTASE CHAIN 4 |
| 2087 | 15208 | 28324 | 2.69 | 2.9E+00 | AE002252.2 | NT | Chlamydia pneumoniae AR39, section 63 of 94 of the complete genome |
| 7049 | 20102 | 33516 | 1.65 | 2.9E+00 | Z36879.1 | NT | F. pringali gdsPA gene for P-protein of the glycine cleavage system |
| 7360 | 20439 | 33899 | 4.66 | 2.9E+00 | O14514 | SWISSPROT | BRAIN-SPECIFIC ANGIOGENESIS INHIBITOR 1 PRECURSOR |
| 7360 | 20439 | 33900 | 4.66 | 2.9E+00 | O14514 | SWISSPROT | BRAIN-SPECIFIC ANGIOGENESIS INHIBITOR 1 PRECURSOR |
| 7614 | 20694 | 34160 | 6.19 | 2.9E+00 | P46699 | SWISSPROT | ADHERENCE FACTOR (ADHESION AND AGGREGATION MEDIATING SURFACE-ANTIGEN) |
| 8052 | 21135 | 34666 | 0.57 | 2.9E+00 | P05844 | SWISSPROT | STRUCTURAL POLYPEPTIDE [CONTAINS: MAJOR STRUCTURAL PROTEIN VP2; NONSTRUCTURAL PROTEIN VP4; MINOR STRUCTURAL PROTEIN VP3] |
| 8052 | 21135 | 34666 | 0.57 | 2.9E+00 | P05844 | SWISSPROT | STRUCTURAL POLYPEPTIDE [CONTAINS: MAJOR STRUCTURAL PROTEIN VP2; NONSTRUCTURAL PROTEIN VP4; MINOR STRUCTURAL PROTEIN VP3] |
| 8289 | 21371 | 34892 | 0.81 | 2.9E+00 | BF344171.1 | EST_HUMAN | NONSTRUCTURAL POLYPEPTIDE [CONTAINS: MAJOR STRUCTURAL PROTEIN VP2; NONSTRUCTURAL PROTEIN VP4; MINOR STRUCTURAL PROTEIN VP3] |
| 9438 | 22512 | | 0.82 | 2.9E+00 | AJ002153.2 | NT | 902017413FT NCI_CGAP_Br64 Homo sapiens cDNA clone IMAGE:4153059 5' |
| 1486 | 14639 | 27722 | 4.77 | 2.8E+00 | AF186396.1 | NT | Sagittaria oedipus gene for seminal vesicle secreted protein semenogelin I |
| 1662 | 14814 | | 3.14 | 2.8E+00 | AL161552.2 | NT | Buxus harlandii malurase K (matK) gene, partial cds; chloroplast gene for chloroplast product |
| 7460 | 20595 | 34010 | 5.05 | 2.8E+00 | 8393724 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 52 |
| 8613 | 22853 | | 0.6 | 2.8E+00 | BE966182.1 | NT | Mus musculus endomucin (LOC53423), mRNA |
| 10828 | 20535 | 34010 | 1.53 | 2.8E+00 | 8393724 | EST_HUMAN | 601342756F1 NIH_MGC_59 Homo sapiens cDNA clone IMAGE:3884807 5' |
| 240 | 13462 | 26490 | 13.96 | 2.7E+00 | 6679308 | NT | Mus musculus endomucin (LOC53423), mRNA |
| 240 | 13462 | 26491 | 13.96 | 2.7E+00 | 6679308 | NT | Mus musculus per-hexamer repeat gene 3 (Phxr3), mRNA |

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|------------------------|-----------------------|-------------------|----------------------|---|-----------------------------|-------------------------------|---|
| 5663 | 18853 | 32148 | 1.41 | 2.7E+00 | L14005.1 | NT | Homo sapiens apoA polymorphism Kringle IV gene, exons 1 and 2 |
| 8339 | 21420 | | 0.74 | 2.7E+00 | U15947.1 | NT | Iponoea purpurea chalcone synthase (CHSB) gene including complete 5'UTR and complete cds |
| 9163 | 22246 | | 2.16 | 2.7E+00 | AL116459.1 | NT | Botrytis cinerea strain T-4 cDNA library under conditions of nitrogen deprivation |
| 9532 | 21075 | 34587 | 0.61 | 2.7E+00 | AW068191.1 | EST_HUMAN | xc88612.x1 NCI_CGAP_Bm35 Homo sapiens cDNA clone IMAGE:2591374 3' similar to gb:M17733 |
| 10718 | 23751 | | 1.94 | 2.7E+00 | BE063527.1 | EST_HUMAN | THYMOSIN BETA-4 (HUMAN); |
| 4768 | 17931 | 30917 | 5.51 | 2.6E+00 | AF068749.1 | NT | QMC-BT0281-031199-087-H04 BT0281 Homo sapiens cDNA |
| 5665 | 18859 | 32143 | 2.04 | 2.6E+00 | 6755601 | NT | Mus musculus sphingosine kinase (SPHK1b) mRNA, complete cds |
| 5665 | 18859 | 32144 | 2.04 | 2.6E+00 | 6755601 | NT | Mus musculus SRY-box containing gene 13 (Sox13), mRNA |
| 5947 | 19133 | | 2.55 | 2.6E+00 | Y17092.1 | NT | Mus musculus SRY-box containing gene 13 (Sox13), mRNA |
| 7727 | 26220 | | 1.16 | 2.6E+00 | AJ224539.1 | NT | Mycobacterium fortuitum furA II gene |
| 7879 | 20931 | | 11.25 | 2.6E+00 | AF235502.1 | NT | Homo sapiens Surf-5 and Surf-6 genes |
| 8249 | 21331 | 34847 | 1.17 | 2.6E+00 | AJ132180.1 | NT | Mus musculus SH2-containing Inositol 5-phosphatase (SHIP) gene, exons 18 through 27, and complete cds |
| 8249 | 21331 | 34848 | 1.17 | 2.6E+00 | AJ132180.1 | NT | faba bean necrotic yellow virus C2-Eg gene, isolate Egyptian EV1-93 |
| 9858 | 22898 | 36481 | 2.85 | 2.6E+00 | AL161540.2 | NT | faba bean necrotic yellow virus C2-Eg gene, isolate Egyptian EV1-93 |
| 10563 | 23598 | | 1.91 | 2.6E+00 | 9055183 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 40 |
| 11281 | 24347 | 37884 | 2.2 | 2.6E+00 | AF143676.1 | NT | Mus musculus cleavage and polyadenylation specificity factor 3 (Cpaf3), mRNA |
| 12917 | 26094 | | 3.3 | 2.6E+00 | 11418220 | NT | Hantavirus Z10 segment M G1/G2 glycoprotein (Z10) gene, complete cds |
| 1492 | 14645 | 27726 | 3.03 | 2.5E+00 | AJ271844.1 | NT | Homo sapiens ATP-binding cassette, sub-family B (MDR/TAP), member 4 (ABCB4), mRNA |
| 1492 | 14645 | 27727 | 3.03 | 2.5E+00 | AJ271844.1 | NT | Aspergillus nidulans recQ gene for DNA helicase, exons 1-4 |
| 5634 | 19120 | 32431 | 2.24 | 2.5E+00 | P13485 | SWISSPROT | Aspergillus nidulans recQ gene for DNA helicase, exons 1-4 |
| 5934 | 19120 | 32432 | 2.24 | 2.5E+00 | P13485 | SWISSPROT | TEICHOIC ACID BIOSYNTHESIS PROTEIN F |
| 6586 | 19120 | 32431 | 1.42 | 2.5E+00 | P13485 | SWISSPROT | TEICHOIC ACID BIOSYNTHESIS PROTEIN F |
| 6586 | 19120 | 32432 | 1.42 | 2.5E+00 | P13485 | SWISSPROT | TEICHOIC ACID BIOSYNTHESIS PROTEIN F |
| 8868 | 20020 | 33428 | 0.77 | 2.5E+00 | D30052.1 | NT | TEICHOIC ACID BIOSYNTHESIS PROTEIN F |
| 7936 | 20986 | 34494 | 1.19 | 2.5E+00 | AW949158.1 | EST_HUMAN | Vibrio cholerae cbaA gene and cbaB gene for cholera toxins, complete cds |
| 7985 | 21034 | 34547 | 0.62 | 2.5E+00 | 4502802 | NT | QV4-FT0005-110500-205-607 FT0005 Homo sapiens cDNA |
| 9304 | 22390 | 35931 | 1.55 | 2.5E+00 | D50307.1 | NT | Homo sapiens clathrin, heavy polypeptide-like 1 (CLTCL1), mRNA |
| 10057 | 23095 | 36587 | 0.71 | 2.5E+00 | BE29758.1 | EST_HUMAN | Rice DNA for aldolase C-1, complete cds |
| 11832 | 24821 | | 1.39 | 2.5E+00 | P40170 | SWISSPROT | 601176779F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3631080 6' |
| 12216 | 25167 | | 1.85 | 2.5E+00 | AF289665.1 | NT | DNAJ PROTEIN |
| 3078 | 16254 | 29276 | 0.89 | 2.4E+00 | M24282.1 | NT | Mus musculus EIF4H gene, partial cds; LIMK1 gene, complete cds; and ELN gene, partial cds |
| 5027 | 18156 | 31134 | 4.93 | 2.4E+00 | 4503352 | NT | Chicken alpha-3 collagen type VI mRNA, 3' end |
| | | | | | | | Homo sapiens double C2-like domains, alpha (DOC2A), mRNA |

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|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 6134 | 19313 | 32652 | 4.09 | 2.4E+00 | P02843 | SWISSPROT | VITELLOGENIN I PRECURSOR (YOLK PROTEIN 1) |
| 7638 | 20611 | 34085 | 0.71 | 2.4E+00 | BF687502.1 | EST_HUMAN | 602120886F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4278012 5' |
| 7538 | 20611 | 34086 | 0.71 | 2.4E+00 | BF687502.1 | EST_HUMAN | 602120886F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4278012 5' |
| 8334 | 21416 | 34941 | 2.06 | 2.4E+00 | P26942 | SWISSPROT | CD27L RECEPTOR PRECURSOR (T-CELL ACTIVATION ANTIGEN CD27) (T14) |
| 8334 | 21416 | 34942 | 2.06 | 2.4E+00 | P26942 | SWISSPROT | CD27L RECEPTOR PRECURSOR (T-CELL ACTIVATION ANTIGEN CD27) (T14) |
| 8406 | 21487 | | 2.8 | 2.4E+00 | AE007488.1 | NT | Helicobacter pylori, strain J99 section 47 of 132 of the complete genome |
| 8852 | 21831 | | 1.72 | 2.4E+00 | AW875126.1 | EST_HUMAN | RC2.PT0004-031299-011-d05 P.T0004 Homo sapiens cDNA |
| 9026 | 22107 | 35848 | 8.99 | 2.4E+00 | P24091 | SWISSPROT | ENDOCHITININASE B PRECURSOR (CHN-B) |
| 10244 | 23278 | 36874 | 2.28 | 2.4E+00 | P13073 | SWISSPROT | SKIN GRANULE PROTEIN PRECURSOR |
| 10244 | 23278 | 36875 | 2.28 | 2.4E+00 | P13073 | SWISSPROT | SKIN GRANULE PROTEIN PRECURSOR |
| 10313 | 23348 | 36954 | 2.31 | 2.4E+00 | X92511.1 | NT | H.sapiens CTGF gene and promoter region |
| 10446 | 23484 | | 7.28 | 2.4E+00 | P09099 | SWISSPROT | XYLULOSE KINASE (XYLUKINASE) |
| 10526 | 23563 | 37169 | 1.64 | 2.4E+00 | BE328702.1 | EST_HUMAN | h63306.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3133187 3' |
| 10526 | 23563 | 37170 | 1.64 | 2.4E+00 | BE328702.1 | EST_HUMAN | h63306.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3133187 3' |
| 10818 | 23851 | 37474 | 1.06 | 2.4E+00 | Q51481 | SWISSPROT | DENITRIFICATION REGULATORY PROTEIN NIRQ |
| 11335 | 24388 | 38047 | 1.38 | 2.4E+00 | Y14079.1 | NT | Bacillus subtilis chromosomal DNA, region 75 degrees: glpPKD operon and downstream |
| 11640 | 24720 | 38413 | 2.44 | 2.4E+00 | AF158652.2 | NT | Fragaria x ananassa cytosolic ascorbate peroxidase (ApxSC) gene. ApxSC-c allele, complete cds |
| 1282 | 14438 | 27507 | 9.98 | 2.3E+00 | Z48724.1 | NT | G.domesticus artificial single chain antibody gene (L3) |
| 4237 | 17393 | | 1.41 | 2.3E+00 | AJ401081.1 | NT | Bos taurus partial cyto gene for cytochrome b |
| 6867 | 19148 | | 0.91 | 2.3E+00 | N86245.1 | EST_HUMAN | J73-40F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone J73-40 5' similar to PROLYLCARBOXYPEPTIDASE |
| 7612 | 20692 | 34158 | 2.75 | 2.3E+00 | Q07076 | NT | Rattus norvegicus ATPase, Ca++ transporting, ubiquitous (Atp2a3), mRNA |
| 7771 | 20221 | | 2.37 | 2.3E+00 | P07189 | SWISSPROT | MAJOR CENTROMERE AUTOANTIGEN B (CENTROMERE PROTEIN B) (CENP-B) |
| 7858 | 21008 | 34518 | 1.28 | 2.3E+00 | X60285.1 | NT | M.mazael dnaK and dnaJ genes homologues coding for DnaK and DnaJ |
| 8310 | 22386 | 35938 | 0.62 | 2.3E+00 | 5835317 | NT | Polyporus ornatiipinnis mitochondrion, complete genome |
| 8371 | 22446 | 36008 | 1.66 | 2.3E+00 | Q11127 | SWISSPROT | ALPHA-(1,3)-FUCOSYLTRANSFERASE (GALACTOSIDE 3-L-FUCOSYLTRANSFERASE) |
| 11041 | 24120 | 37753 | 2.72 | 2.3E+00 | Q07076 | SWISSPROT | ANNEXIN VII (SYNEXIN) |
| 12075 | 25056 | 38793 | 2.14 | 2.3E+00 | BF541987.1 | EST_HUMAN | 602069121F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4088173 5' |
| 12075 | 25056 | 38794 | 2.14 | 2.3E+00 | BF541987.1 | EST_HUMAN | 602069121F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4088173 5' |
| 12445 | 25315 | 32091 | 7.41 | 2.3E+00 | BE895237.1 | EST_HUMAN | 601433673F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3916843 5' |
| 4126 | 17280 | 30276 | 1.06 | 2.2E+00 | AF020528.1 | NT | Magnaporthe grisea Class IV chitin synthase (chs4) gene, complete cds |
| 4432 | 17572 | 30553 | 4.12 | 2.2E+00 | D67071.1 | NT | Rat gene for regucalcin, exon1 (non-coding exon) |

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|------------------------|-----------------------|-------------------|----------------------|---|-----------------------------|-------------------------------|---|
| 4432 | 17572 | 30554 | 4.12 | 2.2E+00 | D97071.1 | NT | Rat gene for regucalcin, exon1 (non-coding exon) |
| 5458 | 18658 | 31636 | 11.22 | 2.2E+00 | O88307 | SWISSPROT | SORTILIN-RELATED RECEPTOR PRECURSOR (SORTING PROTEIN-RELATED RECEPTOR CONTAINING LDLR CLASS A REPEATS) (SORLA-1) (LOW-DENSITY LIPOPROTEIN RECEPTOR RELATIVE WITH 11 LIGAND-BINDING REPEATS) (LDLR RELATIVE WITH 11 LIGAND-BINDING REPEATS) (LR11) (>) |
| 5458 | 18658 | 31637 | 11.22 | 2.2E+00 | O88307 | SWISSPROT | SORTILIN-RELATED RECEPTOR PRECURSOR (SORTING PROTEIN-RELATED RECEPTOR CONTAINING LDLR CLASS A REPEATS) (SORLA-1) (LOW-DENSITY LIPOPROTEIN RECEPTOR RELATIVE WITH 11 LIGAND-BINDING REPEATS) (LDLR RELATIVE WITH 11 LIGAND-BINDING REPEATS) (LR11) (>) |
| 5975 | 19160 | 32478 | 1.93 | 2.2E+00 | BE927220.1 | EST_HUMAN | RC3-CT0254-300800-022-e06 CT0254 Homo sapiens cDNA |
| 5975 | 19160 | 32479 | 1.93 | 2.2E+00 | BE927220.1 | EST_HUMAN | RC3-CT0254-300800-022-e06 CT0254 Homo sapiens cDNA |
| 6187 | 19363 | 32711 | 9.39 | 2.2E+00 | BE250383.1 | EST_HUMAN | B00943401T1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2959777 3' |
| 6484 | 19651 | 33013 | 2.87 | 2.2E+00 | Q00335 | SWISSPROT | MINOR VIRION STRUCTURAL PROTEIN MU-2 |
| 6730 | 19886 | 33278 | 3.14 | 2.2E+00 | P51459 | SWISSPROT | INSULIN-LIKE GROWTH FACTOR II PRECURSOR (IGF-II) (SOMATOMEDIN A) |
| 7097 | 18524 | 34017 | 3.4 | 2.2E+00 | AA594574.1 | EST_HUMAN | nt95102.s1 NCI_CGAP_Corf0 Homo sapiens cDNA clone IMAGE:1056379 3' |
| 7470 | 20545 | 34017 | 0.83 | 2.2E+00 | AA137027.1 | EST_HUMAN | zr9704.r1 Striatogene fetal retina 937202 Homo sapiens cDNA clone IMAGE:566143 5' |
| 7783 | 20839 | 34332 | 11.91 | 2.2E+00 | AA449012.1 | EST_HUMAN | z05g10.r1 Scarses_t01a_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:785634 5' |
| 7888 | 20920 | 34427 | 0.68 | 2.2E+00 | P54918 | SWISSPROT | ALANINE RACEMASE |
| 8294 | 21376 | 34886 | 0.65 | 2.2E+00 | BE301560.1 | EST_HUMAN | bb17h12.x1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:2963207 3' similar to gb:D45838 Mouse mRNA for nuclear pore-targeting complex component of (MOUSE); |
| 8294 | 21376 | 34897 | 0.65 | 2.2E+00 | BE301560.1 | EST_HUMAN | bb17h12.x1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:2963207 3' similar to gb:D45838 Mouse mRNA for nuclear pore-targeting complex component of (MOUSE); |
| 9542 | 22807 | | 12.49 | 2.2E+00 | BE741678.1 | EST_HUMAN | 601504733F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3948561 5' |
| 9788 | 25860 | | 2.12 | 2.2E+00 | Q04706 | SWISSPROT | TRANSPONSON TY1 PROTEIN A |
| 10259 | 23284 | 36850 | 1.12 | 2.2E+00 | A1290373.1 | EST_HUMAN | qm69b03.x1 Scarses_placenta_8to9weeks_2NbHP8b9w Homo sapiens cDNA clone IMAGE:1863965 3' similar to gb:Y00493 GLUTATHIONE PEROXIDASE (HUMAN); |
| 10259 | 23294 | 36891 | 1.12 | 2.2E+00 | A1290373.1 | EST_HUMAN | qm69b03.x1 Scarses_placenta_8to9weeks_2NbHP8b9w Homo sapiens cDNA clone IMAGE:1863965 3' similar to gb:Y00493 GLUTATHIONE PEROXIDASE (HUMAN); |
| 10301 | 23336 | 36941 | 3.04 | 2.2E+00 | BF246782.1 | EST_HUMAN | 601855591F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4075391 5' |
| 10673 | 23707 | 37315 | 2.6 | 2.2E+00 | AF183416.1 | NT | Homo sapiens ovarian granulosa cell T3.0 kDa protein HGR74 homolog mRNA, complete cds |
| 11726 | 23912 | 37538 | 3.3 | 2.2E+00 | P07911 | SWISSPROT | UROMODULIN PRECURSOR (TAMM-HORSFALL URINARY GLYCOPROTEIN) (THP) |
| 11915 | 24902 | 38605 | 6.04 | 2.2E+00 | P10407 | SWISSPROT | EARLY E1A 28 KD PROTEIN |
| 583 | 16016 | 26795 | 13.2 | 2.1E+00 | AF132812.2 | NT | Mus musculus pre-T cell receptor alpha gene, enhancer region and upstream region |
| 3678 | 16841 | | 1.19 | 2.1E+00 | AW449366.1 | EST_HUMAN | UI-HB13-ak-e-08-UJ1.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2734550 3' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 6260 | 19434 | | 0.97 | 2.1E+00 | P75357 | SWISSPROT | HYPOTHETICAL PROTEIN MG302 HOMOLOG |
| 6847 | 20260 | 33888 | 3.51 | 2.1E+00 | O70169 | SWISSPROT | ALPHA-2HS-GLYCOPROTEIN PRECURSOR (FETUIN-A) |
| 7169 | 20302 | 33745 | 0.77 | 2.1E+00 | 4503430 | NT | Homo sapiens dyseferlin, limb girdle muscular dystrophy 2B (autosomal recessive) (DYSF) mRNA, and translated products |
| 7191 | 20056 | 33466 | 6.88 | 2.1E+00 | N28575.1 | EST_HUMAN | y08a10.s1 Sources melanocyte 2NbhM Homo sapiens cDNA clone IMAGE:270818 3' similar to gb:M5954 |
| 8694 | 21774 | | 2.43 | 2.1E+00 | AU123630.1 | EST_HUMAN | TRANSCRIPTION INITIATION FACTOR TFIIID (HUMAN); |
| 1223 | 14383 | 27444 | 1.32 | 2.0E+00 | AF180527.1 | NT | AU123630 NT2RM2 Homo sapiens cDNA clone NT2RM200671 5' |
| 1223 | 14383 | 27446 | 1.32 | 2.0E+00 | AF180527.1 | NT | Homo sapiens p22Dokdel (DOKDEL) mRNA, complete cds |
| 1366 | 14820 | 27595 | 1.37 | 2.0E+00 | AF204927.1 | NT | Homo sapiens p22Dokdel (DOKDEL) mRNA, complete cds |
| 1606 | 14758 | | 3.08 | 2.0E+00 | P25582 | SWISSPROT | Oryctolagus cuniculus Na ⁺ /K ⁺ -ATPase beta 1 subunit mRNA, complete cds |
| 2216 | 16360 | 28480 | 7.2 | 2.0E+00 | Z78279.1 | NT | PUTATIVE RNA METHYLTRANSFERASE SPB1 |
| 2216 | 15350 | 28481 | 7.2 | 2.0E+00 | Z78279.1 | NT | R.norvegicus mRNA for collagen alpha1 type 1 |
| 4216 | 17385 | 30383 | 1.71 | 2.0E+00 | AW684486.1 | EST_HUMAN | R.norvegicus mRNA for collagen alpha1 type 1 |
| 4216 | 17385 | 30354 | 1.71 | 2.0E+00 | AW684486.1 | EST_HUMAN | h113c05.x1 NCI CGAP GU1 Homo sapiens cDNA clone IMAGE:2872168 3' similar to gb:X01677 |
| 7722 | 20786 | | 0.98 | 2.0E+00 | P07568 | SWISSPROT | GLYCERALDEHYDE 3-PHOSPHATE DEHYDROGENASE, LIVER (HUMAN); |
| 8214 | 21296 | 34815 | 4 | 2.0E+00 | AB008676.1 | NT | GLYCERALDEHYDE 3-PHOSPHATE DEHYDROGENASE, LIVER (HUMAN); |
| 8214 | 21296 | 34816 | 4 | 2.0E+00 | AB008676.1 | NT | STRUCTURAL POLYPROTEIN [CONTAINS: NUCLEOCAPSID PROTEIN C; MEMBRANE |
| 8214 | 21296 | 34817 | 4 | 2.0E+00 | AB008676.1 | NT | GLYCOPROTEINS E1 AND E2] |
| 9122 | 22201 | 35743 | 3.04 | 2.0E+00 | F31500.1 | EST_HUMAN | Escherichia coli 0157 DNA, map position at 46 min., complete cds |
| 12815 | 26022 | 31670 | 6.76 | 2.0E+00 | 5834843 | NT | Escherichia coli 0157 DNA, map position at 46 min., complete cds |
| 5715 | 18908 | 32202 | 4.28 | 1.9E+00 | 6754389 | NT | Escherichia coli 0157 DNA, map position at 46 min., complete cds |
| 5715 | 18908 | 32203 | 4.28 | 1.9E+00 | 6754389 | NT | Escherichia coli 0157 DNA, map position at 46 min., complete cds |
| 6225 | 19400 | 32750 | 1.2 | 1.9E+00 | BE686965.1 | EST_HUMAN | Escherichia coli 0157 DNA, map position at 46 min., complete cds |
| 6782 | 19947 | | 0.92 | 1.9E+00 | AW845889.1 | EST_HUMAN | HSPD22/03 MM3 Homo sapiens cDNA clone s4000117B08 |
| 6886 | 20040 | | 1.91 | 1.9E+00 | Q63627 | SWISSPROT | Gallus gallus mitochondrion, complete genome |
| 8653 | 21733 | 35272 | 2.21 | 1.9E+00 | P02467 | SWISSPROT | Mus musculus inositol 1,4,5-trisphosphate receptor 1 (ltp1), mRNA |
| 8653 | 21733 | 35273 | 2.21 | 1.9E+00 | P02467 | SWISSPROT | Mus musculus inositol 1,4,5-trisphosphate receptor 1 (ltp1), mRNA |
| 8856 | 21938 | | 3.32 | 1.9E+00 | BF360206.1 | EST_HUMAN | 601678636F1 NIH_MGC_78 Homo sapiens cDNA clone IMAGE:3949881 5' |
| 8085 | 22174 | | 1.86 | 1.8E+00 | O51781 | SWISSPROT | MRO-CT0063-071099-002-g02 CT0063 Homo sapiens cDNA |
| | | | | | | | CTD-BINDING SR-LIKE PROTEIN RA4 |
| | | | | | | | COLLAGEN ALPHA 2(I) CHAIN PRECURSOR |
| | | | | | | | COLLAGEN ALPHA 2(I) CHAIN PRECURSOR |
| | | | | | | | GM3-MT0114-010800-323-H12 MT0114 Homo sapiens cDNA |
| | | | | | | | ARGININE DEMINASE (ADI) (ARGININE DIHYDROLASE) (AD) |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|-----------------------------|-------------------------------|---|
| 9830 | 22870 | 36452 | 0.63 | 1.8E+00 | AA686125.1 | EST_HUMAN | ab94804.s1 Stralagene lung (#937210) Homo sapiens cDNA clone IMAGE:884574 3' similar to contains Alu repetitive element; contains element L1 L1 repetitive element; |
| 10780 | 23823 | 37447 | 0.67 | 1.6E+00 | AF248269.1 | NT | Homo sapiens gag-pro-pol precursor protein gene, partial cds |
| 3182 | 16337 | 28348 | 1.69 | 1.8E+00 | P21004 | SWISSPROT | PROTEIN B8 PRECURSOR |
| 3190 | 16365 | 29370 | 2.15 | 1.8E+00 | U04358.1 | NT | Synechococcus sp. POC7942 copper transporting P-ATPase (ctaA) and ATP synthase epsilon subunit (atpE) genes, complete cds |
| 3190 | 16365 | 29371 | 2.16 | 1.8E+00 | U04358.1 | NT | Synechococcus sp. POC7942 copper transporting P-ATPase (ctaA) and ATP synthase epsilon subunit (atpE) genes, complete cds |
| 5988 | 19173 | 29371 | 2.16 | 1.8E+00 | U04358.1 | NT | Synechococcus sp. POC7942 copper transporting P-ATPase (ctaA) and ATP synthase epsilon subunit (atpE) genes, complete cds |
| 6230 | 19409 | 32785 | 1.63 | 1.8E+00 | P18502 | SWISSPROT | HEDGEHOG RECEPTOR (PATCHED PROTEIN) |
| 8528 | 18692 | 32785 | 2.02 | 1.8E+00 | BF311899.1 | EST_HUMAN | 601897854F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4127364 5' |
| 8879 | 20031 | 33441 | 1.28 | 1.8E+00 | BF683327.1 | EST_HUMAN | 602139470F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4289272 5' |
| 7204 | 20069 | 33478 | 1.15 | 1.8E+00 | BF305652.1 | EST_HUMAN | 601893489F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4139038 5' |
| 7411 | 20488 | | 1.22 | 1.8E+00 | P21249 | SWISSPROT | MAJOR ANTIGEN |
| 8308 | 21390 | 34913 | 0.8 | 1.8E+00 | P27127 | SWISSPROT | LIPOLYSACCHARIDE 1,8-GALACTOSYLTRANSFERASE (UDP-D-GALACTOSE--(GLUCOSYL)LIPOPOLYSACCHARIDE-ALPHA-1,3-D-GALACTOSYLTRANSFERASE) |
| 8308 | 21390 | 34914 | 0.98 | 1.8E+00 | P11369 | SWISSPROT | RETROVIRUS-RELATED POL POLYPYRROLINE [CONTAINS: REVERSE TRANSCRIPTASE; ; |
| 9056 | 22134 | 36878 | 0.98 | 1.8E+00 | P11369 | SWISSPROT | RETROVIRUS-RELATED POL POLYPYRROLINE [CONTAINS: REVERSE TRANSCRIPTASE; ; |
| 9376 | 22461 | 36013 | 2.28 | 1.8E+00 | O43281 | SWISSPROT | ENDONUCLEASE |
| 9462 | 22518 | 36081 | 0.78 | 1.8E+00 | R31042.1 | EST_HUMAN | EMBRYONAL FYN-ASSOCIATED SUBSTRATE (HEFS) |
| 9898 | 23034 | 36628 | 0.82 | 1.8E+00 | AW880004.1 | EST_HUMAN | Y7208.1 Source placenta Nb2HP Homo sapiens cDNA clone IMAGE:136278 5' |
| 10084 | 23092 | 36694 | 0.47 | 1.8E+00 | P06828 | SWISSPROT | QV0-OT0030-070300-149-a03 OT0030 Homo sapiens cDNA |
| 10480 | 23525 | | 0.94 | 1.8E+00 | AF111849.1 | NT | FUSION GLYCOPROTEIN PRECURSOR [CONTAINS: FUSION GLYCOPROTEIN F2; FUSION GLYCOPROTEIN F1] |
| 10777 | 23810 | | 4.71 | 1.8E+00 | P44925 | SWISSPROT | CHITINASE D PRECURSOR |
| 12575 | 25994 | | 0.75 | 1.8E+00 | AF314254.1 | NT | Homo sapiens PRO5830 mRNA, complete cds |
| 12687 | 25444 | | 4.97 | 1.8E+00 | 9508404 | NT | CYTIDINE DEAMINASE (CYTIDINE AMINOHYDROLASE) (CDA) |
| 13005 | 25897 | 31654 | 8.01 | 1.8E+00 | BF212412.1 | EST_HUMAN | Chlamydomonas reinhardtii alternative oxidase 1 (AOX1) gene, nuclear: gene encoding mitochondrial protein |
| 1132 | 14297 | 27352 | 1.46 | 1.8E+00 | Q60114 | SWISSPROT | Rattus norvegicus Actin-related protein complex 1b (Arpct1b), mRNA |
| 2345 | 15478 | 28609 | 1.68 | 1.7E+00 | AL183280.2 | NT | 601813714F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4048251 5' |
| | | | 4.9 | 1.7E+00 | | | LEVANSUCRASE (BETA-D-FRUCTOFURANOSYL TRANSFERASE) (SUCROSE 6-FRUCTOSYL TRANSFERASE) |
| | | | | | | | Homo sapiens chromosome 21 segment HS21C080 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 2445 | 15573 | 28702 | 1.49 | 1.7E+00 | AI141087.1 | EST_HUMAN | oz43h05.x1 Scores_NHMPu_S1 Homo sapiens cDNA clone IMAGE:1678137 3' |
| 4881 | 17718 | 30701 | 0.08 | 1.7E+00 | Q60114 | SWISSPROT | LEVANSUCRASE (BETA-D-FRUCTOFURANOSYL TRANSFERASE) (SUCROSE 6-FRUCTOSYL TRANSFERASE) |
| 5730 | 18923 | 32216 | 1.73 | 1.7E+00 | BE063546.1 | EST_HUMAN | CMO-BT0282-171299-127-e05 BT0282 Homo sapiens cDNA |
| 5730 | 18923 | 32217 | 1.73 | 1.7E+00 | BE063546.1 | EST_HUMAN | CMO-BT0282-171299-127-e05 BT0282 Homo sapiens cDNA |
| 6141 | 18319 | 32661 | 3.02 | 1.7E+00 | Q911TR8 | SWISSPROT | COUP TRANSCRIPTION FACTOR 1 (COUP-TF1) (COUP-TF1) |
| 6882 | 19840 | 33230 | 0.67 | 1.7E+00 | P38816 | SWISSPROT | [PYRUVATE DEHYDROGENASE (LIPONIC)]-PHOSPHATASE, MITOCHONDRIAL PRECURSOR (PDP) (PYRUVATE DEHYDROGENASE PHOSPHATASE, CATALYTIC SUBUNIT) (PDP) |
| 7367 | 20446 | 33908 | 1.18 | 1.7E+00 | Q03703 | SWISSPROT | HYPOPHOSPHATE 38.0 KD PROTEIN IN CAT2-AMID1 INTERGENIC REGION |
| 7367 | 20446 | 33909 | 1.18 | 1.7E+00 | Q03703 | SWISSPROT | HYPOPHOSPHATE 38.0 KD PROTEIN IN CAT2-AMID1 INTERGENIC REGION |
| 8038 | 21121 | 34641 | 1.1 | 1.7E+00 | AF021335.1 | NT | Mus musculus T cell receptor gamma locus, TCR gamma 2 and gamma 4 gene clusters |
| 8222 | 21304 | 34825 | 1.08 | 1.7E+00 | AF021335.1 | NT | Mus musculus T-cell acute lymphocytic leukemia 1 (Tlal), mRNA |
| 8252 | 21334 | 34852 | 0.61 | 1.7E+00 | BF630630.1 | EST_HUMAN | 602071917F1 NCL_CGAP_Bin87 Homo sapiens cDNA clone IMAGE:4214669 5' |
| 8739 | 21818 | 36362 | 0.76 | 1.7E+00 | AF246513.1 | NT | Hippoglossus hippoglossus Interferon Inducible Mx protein (Mx) mRNA, complete cds |
| 8828 | 21907 | 36519 | 1.83 | 1.7E+00 | BF630630.1 | EST_HUMAN | 601894255F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4140084 6' |
| 8901 | 21980 | 36519 | 0.66 | 1.7E+00 | X69063.1 | NT | M. musculus Ank-1 mRNA for erythroid ankyrin |
| 8901 | 21980 | 36520 | 0.66 | 1.7E+00 | X69063.1 | NT | M. musculus Ank-1 mRNA for erythroid ankyrin |
| 9014 | 22093 | 36633 | 1.03 | 1.7E+00 | U19832.1 | NT | Rattus norvegicus SA gene, partial cds |
| 9360 | 26859 | 35981 | 2.44 | 1.7E+00 | O60479 | SWISSPROT | HOMEBOX PROTEIN DLX-3 |
| 9360 | 26859 | 35982 | 2.44 | 1.7E+00 | O60479 | SWISSPROT | HOMEBOX PROTEIN DLX-3 |
| 9808 | 22849 | | 1 | 1.7E+00 | AF161380.1 | NT | Homo sapiens HSPC282 mRNA, partial cds |
| 10376 | 23410 | | 0.54 | 1.7E+00 | AW953683.1 | EST_HUMAN | EST389751 IMAGE resequences, MAGC Homo sapiens cDNA |
| 10857 | 23890 | 37609 | 0.47 | 1.7E+00 | BE878260.1 | EST_HUMAN | 601488170F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3890484 5' |
| 10857 | 23890 | 37510 | 0.47 | 1.7E+00 | BE878260.1 | EST_HUMAN | 601488170F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3890484 5' |
| 11896 | 24894 | 38582 | 1.67 | 1.7E+00 | W22424.1 | EST_HUMAN | 6787 Human retina cDNA Tsp5091-cleaved sublibrary Homo sapiens cDNA not directional |
| 12623 | 26356 | 32066 | 1.94 | 1.7E+00 | AI678443.1 | EST_HUMAN | tu82607.x1 NCL_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2257649 3' similar to contains MSR1.11 |
| 2080 | 18230 | 28352 | 18.53 | 1.8E+00 | AF199339.1 | NT | MSR1 repetitive element |
| 2101 | 16241 | 28362 | 4.14 | 1.8E+00 | AF077374.1 | NT | Homo sapiens lens epithelium-derived growth factor gene, alternatively spliced, complete cds |
| 2107 | 16246 | 28367 | 1.26 | 1.8E+00 | Y11344.1 | NT | Homo sapiens small proline-rich protein (SPRR3) gene, exons 1, 2, and 3 and complete cds |
| 2357 | 16488 | | 0.97 | 1.8E+00 | X68373.1 | NT | Mus musculus ST6GalNAcII gene, exon 2 |
| 3026 | 16202 | 28225 | 1.22 | 1.8E+00 | W58426.1 | EST_HUMAN | B. napus gene encoding endo-polygalacturonase |
| | | | | | | | z025f01.r1 Scores_fetal_heart_NH19W Homo sapiens cDNA clone IMAGE:341689 5' similar to |
| | | | | | | | gb:D28605 N-ACETYL LACTOSAMINE SYNTHASE (HUMAN); |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 3857 | 17017 | | 1.08 | 1.8E+00 | AB028898.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 4142 | 17294 | | 8.05 | 1.8E+00 | BF570077.1 | EST_HUMAN | 602186095T1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4310591 3' |
| 4472 | 17612 | 30590 | 1.25 | 1.8E+00 | AF155827.1 | NT | Homo sapiens proliferation-associated SNF2-like protein (SMARCA6) mRNA, complete cds |
| 4472 | 17612 | 30591 | 1.25 | 1.8E+00 | AF155827.1 | NT | Homo sapiens proliferation-associated SNF2-like protein (SMARCA6) mRNA, complete cds |
| 5184 | 18306 | 31270 | 0.59 | 1.8E+00 | AF127897.1 | NT | Salmirol bcl-2-like protein (SBO27) gene, partial cds |
| 5194 | 18316 | 31284 | 2.83 | 1.8E+00 | Y11344.1 | NT | Mus musculus ST6GalNAcIII gene, exon 2 |
| 5194 | 18316 | 31285 | 2.83 | 1.8E+00 | Y11344.1 | NT | Mus musculus ST6GalNAcIII gene, exon 2 |
| 5948 | 19134 | 32447 | 2.38 | 1.8E+00 | L04808.1 | NT | Brachydanio rerio MHC class II DA-beta-2'01 gene, 3' end |
| 6035 | 19218 | 32540 | 0.78 | 1.8E+00 | AF005631.1 | NT | Homo sapiens transglutaminase type I (Tgase) gene, promoter region |
| 6599 | 19759 | 33147 | 0.81 | 1.8E+00 | BF380703.1 | EST_HUMAN | IL2-UT0073-080900-145-E02 UT0073 Homo sapiens cDNA |
| 6849 | 20002 | 33411 | 1.05 | 1.8E+00 | AW294881.1 | EST_HUMAN | UHH-B12-ahr-b-04-D-U1st NCI CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2727611 3' |
| 7394 | 20472 | 33938 | 2.37 | 1.8E+00 | BE697267.1 | EST_HUMAN | RC3-CT0415-200700-032-10 CT0415 Homo sapiens cDNA |
| 8219 | 21301 | | 1.3 | 1.8E+00 | Q46376 | SWISSPROT | VIRULENCE FACTOR MVIN HOMOLOG |
| 8574 | 21655 | 35188 | 3.3 | 1.8E+00 | AJ297131.1 | NT | Mus musculus SIL, MAP_17, CYP_a, SCL & CYP_b genes |
| 9101 | 22180 | 35724 | 1.07 | 1.8E+00 | 11437222 | NT | Homo sapiens hypothetical protein PRO0871 (PRO0871), mRNA |
| 9101 | 22180 | 35725 | 1.07 | 1.8E+00 | 11437222 | NT | Homo sapiens hypothetical protein PRO0871 (PRO0871), mRNA |
| 9272 | 22348 | 35898 | 0.49 | 1.8E+00 | BE388331.1 | EST_HUMAN | 601283925F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3605647 5' |
| 9659 | 23857 | 34615 | 1.05 | 1.8E+00 | X52046.1 | NT | M. musculus COL3A1 gene for collagen alpha-1 |
| 9659 | 23857 | 34616 | 1.05 | 1.8E+00 | X52046.1 | NT | M. musculus COL3A1 gene for collagen alpha-1 |
| 9786 | 22826 | | 0.7 | 1.8E+00 | AF043466.1 | NT | Thermotoga bacteriophage D-xylose-binding protein (xyF) gene, complete cds |
| 9835 | 22874 | 36566 | 1.49 | 1.8E+00 | T41290.1 | EST_HUMAN | ph8b6_19/1TV Outward Alu-priated hncDNA library Homo sapiens cDNA clone ph8b6_19/1TV |
| 10388 | 23423 | 37029 | 1.09 | 1.8E+00 | AW835644.1 | EST_HUMAN | QV4-LT0018-080200-100-d07 LT0018 Homo sapiens cDNA |
| 10388 | 23423 | 37030 | 1.09 | 1.8E+00 | AW835644.1 | EST_HUMAN | QV4-LT0018-080200-100-d07 LT0018 Homo sapiens cDNA |
| 10552 | 23597 | 37195 | 0.52 | 1.8E+00 | AF037352.1 | NT | Mus musculus T cell receptor gamma locus, TCR gamma 1 and gamma 3 gene clusters |
| 11010 | 24089 | 37728 | 1.77 | 1.8E+00 | P54817 | SWISSPROT | CAPSID PROTEIN P40 [CONTAINS: ASSEMBLIN (PROTEASE); CAPSID ASSEMBLY PROTEIN] |
| 11082 | 19218 | 32540 | 4.8 | 1.8E+00 | AF005631.1 | NT | Homo sapiens transglutaminase type I (Tgase) gene, promoter region |
| 12006 | 24991 | 38695 | 3.68 | 1.8E+00 | AF104313.1 | NT | Homo sapiens unknown mRNA |
| 33 | 13271 | 26276 | 2.95 | 1.8E+00 | U59448.1 | NT | Rattus norvegicus jun dimerization protein 2 (jdp-2) mRNA, complete cds |
| 241 | 13463 | 26492 | 2.44 | 1.5E+00 | AE002201.2 | NT | Chlamydia pneumoniae AR39, section 32 of 94 of the complete genome |
| 638 | 13821 | | 1.81 | 1.5E+00 | 6732961 | NT | Mus musculus a disintegrin and metalloprotease domain (ADAM) 15 (metagldin) (Adam15), mRNA |
| 2481 | 15908 | 28732 | 1.66 | 1.5E+00 | AJ131402.1 | NT | Potato virus X RNA complete genome, isolate U |
| 2584 | 16709 | 28828 | 2.02 | 1.5E+00 | 6878350 | NT | Mus musculus T-cell lymphoma invasion and metastasis 1 (Tiam1), mRNA |

Page 19 of 550
Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 3208 | 16608 | 28732 | 1.75 | 1.5E+00 | AJ131402.1 | NT | Potato virus A RNA complete genome, isolate U |
| 3462 | 16828 | 29840 | 0.77 | 1.5E+00 | AE001945.1 | NT | Dielisococcus radiculans R1 section 82 of 228 of the complete chromosome 1 |
| 5846 | 18036 | 32342 | 0.71 | 1.5E+00 | AI655301.1 | EST_HUMAN | tt2f10.x1 NCL_CGAP_GC8 Homo sapiens cDNA clone IMAGE:2240587 3' similar to TR:O00237 O00237 HKF-1; |
| 5846 | 19036 | 32343 | 0.71 | 1.5E+00 | AI655301.1 | EST_HUMAN | tt2f10.x1 NCL_CGAP_GC8 Homo sapiens cDNA clone IMAGE:2240587 3' similar to TR:O00237 O00237 HKF-1; |
| 6536 | 18868 | 33072 | 2.43 | 1.5E+00 | R17878.1 | EST_HUMAN | X010e02.r1 Soares Infant brain 1N1B Homo sapiens cDNA clone IMAGE:31683 5' |
| 7278 | 20361 | | 1.68 | 1.5E+00 | BE785358.1 | EST_HUMAN | X01478.745F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3881555 5' |
| 7311 | 20393 | 33853 | 16.24 | 1.5E+00 | P47179 | SWISSPROT | HYPOTHETICAL_118.4 KD PROTEIN IN BAT2-DAL5 INTERGENIC REGION PRECURSOR |
| 7311 | 20393 | 33854 | 16.24 | 1.5E+00 | P47179 | SWISSPROT | HYPOTHETICAL_118.4 KD PROTEIN IN BAT2-DAL5 INTERGENIC REGION PRECURSOR |
| 7500 | 20575 | 34048 | 0.61 | 1.5E+00 | AA889259.1 | EST_HUMAN | ak28f10.s1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:1407115 3' |
| 7766 | 20826 | 34317 | 0.77 | 1.5E+00 | AI003264.1 | EST_HUMAN | ar07b11.s1 Stragene schizo brain S11 Homo sapiens cDNA clone IMAGE:1684893 3' similar to gb:SS95936 SEROTRANSFERRIN PRECURSOR (HUMAN); |
| 8313 | 21395 | 34920 | 0.9 | 1.5E+00 | BE887448.1 | EST_HUMAN | 60150686F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3911181 5' |
| 8367 | 21448 | 34971 | 0.5 | 1.5E+00 | AB040887.1 | NT | Homo sapiens mRNA for KIAA1454 protein, partial cds |
| 8846 | 21925 | 35463 | 1.09 | 1.5E+00 | K02138.1 | NT | Mouse germline IgM chain gene, mu-delta region |
| 9218 | 22266 | | 0.48 | 1.5E+00 | AB038516.1 | NT | Homo sapiens hCG1b alpha gene for platelet glycoprotein Ib alpha, complete cds |
| 9334 | 22410 | 35963 | 0.51 | 1.5E+00 | BF217818.1 | EST_HUMAN | 601882682F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4096135 5' |
| 9684 | 22733 | 36303 | 0.85 | 1.5E+00 | R81928.1 | EST_HUMAN | y03h01.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:147697 5' |
| 9835 | 22875 | 36439 | 1.6 | 1.5E+00 | AW375697.1 | EST_HUMAN | QV3-CT0192-281099-008-009 CT0192 Homo sapiens cDNA |
| 10064 | 23102 | 36705 | 6.49 | 1.5E+00 | BF375754.1 | EST_HUMAN | RC0-TN0078-150900-034-005 TN0078 Homo sapiens cDNA |
| 10268 | 23263 | | 1.85 | 1.5E+00 | BF337944.1 | EST_HUMAN | 602035771F1 NCL_CGAP_Bin84 Homo sapiens cDNA clone IMAGE:4183865 5' |
| 10399 | 23434 | 37040 | 2.26 | 1.5E+00 | AA017689.1 | EST_HUMAN | z638g06.r1 Soares retina Nb244HR Homo sapiens cDNA clone IMAGE:361308 5' |
| 10399 | 23434 | 37041 | 2.26 | 1.5E+00 | AA017689.1 | EST_HUMAN | z638g06.r1 Soares retina Nb244HR Homo sapiens cDNA clone IMAGE:361308 5' |
| 11684 | 24683 | 38373 | 3.4 | 1.5E+00 | AL134197.1 | EST_HUMAN | DKFZp647P243_s1 547 (synonym: hbrt1) Homo sapiens cDNA clone DKFZp647P243 3' |
| 11834 | 24823 | | 7.68 | 1.5E+00 | X07980.1 | NT | Maize mitochondrial tRNA-Ser gene and tRNA-Phe pseudogene |
| 11929 | 24915 | 38617 | 1.39 | 1.5E+00 | AI4007798.1 | EST_HUMAN | tg94d09.x1 NCL_CGAP_GLT1 Homo sapiens cDNA clone IMAGE:2116433 3' |
| 11929 | 24916 | 38618 | 1.39 | 1.5E+00 | AI4007798.1 | EST_HUMAN | tg94d09.x1 NCL_CGAP_GLT1 Homo sapiens cDNA clone IMAGE:2116433 3' |
| 12515 | 26095 | 31662 | 1.61 | 1.5E+00 | D63480.1 | NT | Human mRNA for KIAA0148 gene, partial cds |
| 12765 | 25508 | | 3.92 | 1.5E+00 | AL445065.1 | NT | Thermoplasma acidophilum complete genome, segment 3/5 |
| 12888 | 25589 | | 2.17 | 1.5E+00 | 6978492 | NT | Rattus norvegicus 5'-Lipoxygenase (ALOX5), mRNA |
| 13220 | 25764 | 31888 | 1.31 | 1.5E+00 | BF223933.1 | EST_HUMAN | 7a82b08.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE: 3' |
| 30 | 13268 | 26271 | 2.27 | 1.4E+00 | 7661685 | NT | Homo sapiens DKFZP586M0122 protein (DKFZP586M0122), mRNA |
| 30 | 13268 | 26272 | 2.27 | 1.4E+00 | 7661685 | NT | Homo sapiens DKFZP586M0122 protein (DKFZP586M0122), mRNA |

Page 20 of 550
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| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 2351 | 15482 | | 0.97 | 1.4E+00 | AF053357.1 | NT | Helicobacter pylori glutamine synthetase (glnA) gene, complete cds |
| 2411 | 15641 | | 9.39 | 1.4E+00 | U87922.1 | NT | Ovis aries prion protein gene, complete cds |
| 2734 | 15851 | 28964 | 1.7 | 1.4E+00 | X74483.1 | NT | Human papillomavirus type 7 genomic DNA |
| 2833 | 15947 | 29055 | 3.22 | 1.4E+00 | AF064594.2 | NT | Fugu rubripes neurofibromatosis type 1 (NF1), A-kinase anchor protein (AKAP84), BAW protein (BAW), and WSB1 protein (WSB1) genes, complete cds |
| 2893 | 15947 | 29058 | 3.22 | 1.4E+00 | AF064594.2 | NT | Fugu rubripes neurofibromatosis type 1 (NF1), A-kinase anchor protein (AKAP84), BAW protein (BAW), and WSB1 protein (WSB1) genes, complete cds |
| 3414 | 16883 | | 0.79 | 1.4E+00 | 6493733 | NT | Homo sapiens Mad4 homolog (MAD4) mRNA |
| 4370 | 17613 | 30493 | 1.13 | 1.4E+00 | AW900455.1 | EST_HUMAN | GM0-NN1005-140300-286-h08 NN1005 Homo sapiens cDNA |
| 4370 | 17613 | 30494 | 1.13 | 1.4E+00 | AW900455.1 | EST_HUMAN | GM0-NN1005-140300-286-h08 NN1005 Homo sapiens cDNA |
| 4708 | 17843 | | 1.51 | 1.4E+00 | BF681547.1 | EST_HUMAN | 602156887F1 NIH_MGC 83 Homo sapiens cDNA clone IMAGE:4287568 5' |
| 5317 | 18434 | | 0.94 | 1.4E+00 | Q07869 | SWISSPROT | PEROXISOME PROLIFERATOR ACTIVATED RECEPTOR ALPHA (PPAR-ALPHA) |
| 5488 | 18887 | 31705 | 1.73 | 1.4E+00 | AW054976.1 | EST_HUMAN | w45g07.x1 NCI_QGAP_Pan1 Homo sapiens cDNA clone IMAGE:2510460 3' |
| 5845 | 18839 | | 6.04 | 1.4E+00 | AB032983.1 | NT | Homo sapiens mRNA for KIAA1157, protein, partial cds |
| 6409 | 19578 | 32939 | 3.07 | 1.4E+00 | Q14372 | SWISSPROT | DNA TOPOISOMERASE III ALPHA |
| 6424 | 26214 | | 3.93 | 1.4E+00 | AB020712.1 | NT | Homo sapiens mRNA for KIAA0905 protein, complete cds |
| 6542 | 19705 | 33078 | 2.8 | 1.4E+00 | Q82777 | SWISSPROT | SYNAPSIN II |
| 6642 | 19705 | 33079 | 2.8 | 1.4E+00 | Q82777 | SWISSPROT | SYNAPSIN II |
| 6991 | 20189 | 33814 | 0.8 | 1.4E+00 | AW893057.1 | EST_HUMAN | GM3-NN0006-300300-132-b12 NN0006 Homo sapiens cDNA |
| 7438 | 20515 | 33988 | 1.99 | 1.4E+00 | AJ133269.1 | NT | Homo sapiens cavedin-1/2 locus, Contig1, D7S622, genes CAV2 (exons 1, 2a and 2b), CAV1 (exons 1 and 2) |
| 7454 | 20531 | 34005 | 1.14 | 1.4E+00 | AW487780.1 | EST_HUMAN | he23105.x1 NCI_QGAP_CML1 Homo sapiens cDNA clone IMAGE:2818873 3' similar to contains Alu repetitive element |
| 7514 | 20568 | 34062 | 0.7 | 1.4E+00 | P55268 | SWISSPROT | LAMININ BETA-2 CHAIN PRECURSOR (S-LAMININ) |
| 7514 | 20568 | 34063 | 0.7 | 1.4E+00 | P55268 | SWISSPROT | LAMININ BETA-2 CHAIN PRECURSOR (S-LAMININ) |
| 8530 | 21811 | | 0.72 | 1.4E+00 | P07983 | SWISSPROT | GLUCOAMYLASE PRECURSOR (GLUCAN 1,4-ALPHA-GLUCOSIDASE) (1,4-ALPHA-D-GLUCAN GLUCOHYDROLASE) |
| 8994 | 22073 | | 5.4 | 1.4E+00 | AJ271735.1 | NT | Homo sapiens Xq pseudautosomal region; segment 1/2 |
| 9295 | 22371 | 35920 | 1.65 | 1.4E+00 | R20459.1 | EST_HUMAN | xg3312.f1 Soares Infant brain 1N18 Homo sapiens cDNA clone IMAGE:34343 5' |
| 9308 | 22472 | 36038 | 3.83 | 1.4E+00 | BE064667.1 | EST_HUMAN | RC1-BT0313-301299-012-005 BT0313 Homo sapiens cDNA |
| 9432 | 22506 | 36072 | 0.65 | 1.4E+00 | AF134844.1 | NT | Sceloporus undulatus ornithine transcarbamylase (OTC) mRNA, complete cds |
| 10412 | 23447 | 37052 | 0.88 | 1.4E+00 | BF575545.1 | EST_HUMAN | 602133135F1 NIH_MGC 81 Homo sapiens cDNA clone IMAGE:4288137 6' |
| 10457 | 23482 | 37102 | 0.88 | 1.4E+00 | BE145374.1 | EST_HUMAN | IL5-HT0188-291099-008-C04 HT0188 Homo sapiens cDNA |
| 10457 | 23482 | 37103 | 0.88 | 1.4E+00 | BE145374.1 | EST_HUMAN | IL5-HT0188-291099-008-C04 HT0188 Homo sapiens cDNA |

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|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 10744 | 23777 | 37390 | 0.98 | 1.4E+00 | D63441.1 | NT | Pandorina colemaniae chloroplast rbcL gene for ribulose biphosphate carboxylase, partial cds |
| 10744 | 23777 | 37391 | 0.98 | 1.4E+00 | D63441.1 | NT | Pandorina colemaniae chloroplast rbcL gene for ribulose biphosphate carboxylase, partial cds |
| 10852 | 29695 | 37504 | 1.16 | 1.4E+00 | Q07283 | SWISSPROT | TRICHOHYALIN |
| 11498 | 24587 | 38232 | 4.52 | 1.4E+00 | AB006882.1 | NT | Homo sapiens APECEC mRNA for AIRE-1; complete cds |
| 11691 | 24689 | 38379 | 3.46 | 1.4E+00 | BE962107.2 | EST_HUMAN | 601655184R1 NIH_MGC_65 Homo sapiens cDNA IMAGE:3845805 3' |
| 11691 | 24689 | 38380 | 3.46 | 1.4E+00 | BE962107.2 | EST_HUMAN | 601655184R1 NIH_MGC_65 Homo sapiens cDNA IMAGE:3845805 3' |
| 11711 | 24751 | 38444 | 2.3 | 1.4E+00 | U30790.1 | NT | Pneumocystis carinii f. sp. ratii guanine nucleotide binding protein alpha subunit (pcg1) gene, complete cds |
| 11711 | 24751 | 38445 | 2.3 | 1.4E+00 | U30790.1 | NT | Pneumocystis carinii f. sp. ratii guanine nucleotide binding protein alpha subunit (pcg1) gene, complete cds |
| 12359 | 26012 | | 2.01 | 1.4E+00 | AL161500.2 | NT | Arabidopsis thaliana DNA chloroplast 4, contig fragment No. 12 |
| 12785 | 26204 | | 2.99 | 1.4E+00 | 11545836 | NT | Homo sapiens cutaneous T-cell lymphoma tumor antigen s970-2 (SE70-2), mRNA |
| 584 | 13776 | | 1.96 | 1.3E+00 | Z73640.1 | NT | M. musculo gene encoding 4-Dihydroxyethyl-histidine dehydrogenase |
| 925 | 14100 | 27164 | 2.78 | 1.3E+00 | AJ271192.1 | NT | Cantharellus sp. partial 26S rRNA gene, isolate Tibet |
| 1153 | 14317 | | 23.81 | 1.3E+00 | Y19213.1 | NT | Homo sapiens putative palihba pseudogene for hair keratin, exons 2 to 7 |
| 1325 | 14482 | 27549 | 14.36 | 1.3E+00 | 4507898 | NT | Homo sapiens zinc finger protein 157 (HZF22) (ZNF157) mRNA |
| 1325 | 14482 | 27550 | 14.36 | 1.3E+00 | 4507898 | NT | Homo sapiens zinc finger protein 167 (HZF22) (ZNF167) mRNA |
| 1387 | 14642 | | 0.98 | 1.3E+00 | U61730.2 | NT | Cdx lactyma-jobi dihydrodipicolinate synthase (dipa) gene, complete cds |
| 1941 | 14763 | | 2.35 | 1.3E+00 | AE002338.2 | NT | Chlamydia muridarum, section 68 of 85 of the complete genome |
| 2316 | 19448 | | 2.38 | 1.3E+00 | AB030447.1 | NT | Cytipus carpio MRPB and MASPb genes for mannose-binding lectin-associated earline protease (MASP) and MASP-related protein, complete cds |
| 2615 | 15739 | | 1.81 | 1.3E+00 | BE966735.2 | EST_HUMAN | 601661233R1 NIH_MGC_72 Homo sapiens cDNA IMAGE:3915845 3' |
| 3005 | 16180 | 29201 | 0.86 | 1.3E+00 | 8766621 | NT | Mus musculus alpha-spectrin 1, erythro (Spn1), mRNA |
| 3886 | 18849 | 29857 | 1.14 | 1.3E+00 | AF016494.1 | NT | Fugu rubripes gamma-aminobutyric acid receptor beta subunit gene, partial cds; 55kd erythrocyte membrane protein (P55), synaptic vesicle-associated integral membrane protein (VAMP-1), procollagen C-proteinase enhancer protein (PCOLCE) genes, complete cds |
| 6631 | 18825 | 31900 | 1 | 1.3E+00 | P19732 | SWISSPROT | PHENOL HYDROXYLASE P3 PROTEIN (PHENOL 2-MONOOXYGENASE P3 COMPONENT) |
| 5827 | 19017 | 32322 | 0.58 | 1.3E+00 | M27138.1 | NT | Human estradiol 17 beta-dehydrogenase gene, complete cds |
| 6142 | 19320 | 32662 | 7.56 | 1.3E+00 | AW362834.1 | EST_HUMAN | PMO-CT0289-291199-004-08 CT0289 Homo sapiens cDNA |
| 6142 | 19320 | 32663 | 7.56 | 1.3E+00 | AW362834.1 | EST_HUMAN | PMO-CT0289-291199-004-08 CT0289 Homo sapiens cDNA |
| 6547 | 19709 | 33085 | 1.14 | 1.3E+00 | M33498.1 | NT | D melanogaster no-on-transient A gene product, complete cds |
| 6890 | 20042 | | 0.71 | 1.3E+00 | Q00156 | SWISSPROT | HYPOTHETICAL GENE 04 PROTEIN |
| 6928 | 20243 | | 0.58 | 1.3E+00 | P49940 | SWISSPROT | SPORE GERMINATION PROTEIN KB |
| 6978 | 20206 | 33634 | 1.04 | 1.3E+00 | M13918.2 | NT | Homo sapiens fibronectin receptor alpha-subunit precursor (ITGA5) mRNA, partial cds |

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|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 7092 | 20186 | 33610 | 1.16 | 1.3E+00 | BE538819.1 | EST_HUMAN | 601061420F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3447965 5' |
| 7249 | 20332 | 33778 | 0.99 | 1.3E+00 | BE243571.1 | EST_HUMAN | TCBAP1D0959 Pediatric pro-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP0959 |
| 7616 | 20696 | 34162 | 0.78 | 1.3E+00 | P24540 | SWISSPROT | ACYLPHOSPHATASE, ORGAN-COMMON TYPE ISOZYMES A AND B (ACYLPHOSPHATE) |
| 8494 | 21575 | 35112 | 1.78 | 1.3E+00 | AJ009912.1 | NT | Sus scrofa plp gene |
| 8642 | 21722 | 35239 | 2.28 | 1.3E+00 | BE983379.2 | EST_HUMAN | 601657145R1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3866195 3' |
| 8758 | 21837 | 35378 | 1.05 | 1.3E+00 | BE974280.1 | EST_HUMAN | 601680250R2 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:3860532 3' |
| 8907 | 21998 | | 1.87 | 1.3E+00 | 9910247 | NT | Homo sapiens GL004 protein (GL004), mRNA |
| 8990 | 22068 | 35509 | 0.88 | 1.3E+00 | A1927629.1 | EST_HUMAN | 6085a07.x1 NCJ_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2462100 3' |
| 9347 | 22423 | 35978 | 0.51 | 1.3E+00 | H42881.1 | EST_HUMAN | y086c03.s1 Soares breast 3NBTBst Homo sapiens cDNA clone IMAGE:183076 3' |
| 9347 | 22423 | 35977 | 0.51 | 1.3E+00 | H42881.1 | EST_HUMAN | y086c03.s1 Soares breast 3NBTBst Homo sapiens cDNA clone IMAGE:183076 3' |
| 9715 | 22780 | | 5.02 | 1.3E+00 | AF042084.1 | NT | Homo sapiens heparan glucosaminyl N-deacetylase/N-sulfotransferase-2 gene, complete cds |
| 9724 | 22789 | 36359 | 2.47 | 1.3E+00 | X72019.1 | NT | S. alba phi-1 mRNA for phobylase |
| 9724 | 22789 | 36360 | 2.47 | 1.3E+00 | X72019.1 | NT | S. alba phi-1 mRNA for phobylase |
| 9823 | 22863 | 36444 | 1.21 | 1.3E+00 | AF059250.1 | NT | Homo sapiens lipoxigenase (ALOX12B) mRNA, complete cds |
| 9847 | 22887 | | 0.47 | 1.3E+00 | AW024390.1 | EST_HUMAN | w039f03.x1 NCJ_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:2528477 3' similar to gb:M31622 |
| 9871 | 22911 | 36496 | 1.65 | 1.3E+00 | C00754 | SWISSPROT | TRANSCRIPTION FACTOR ITF-1 (HUMAN); |
| 9952 | 23091 | 36584 | 1.21 | 1.3E+00 | A1927629.1 | EST_HUMAN | LYSOSOMAL ALPHA-MANNOSIDASE PRECURSOR (MANNOSIDASE, ALPHA B) (LYSOSOMAL ACID ALPHA-MANNOSIDASE) (LAMMAN) |
| 10031 | 23069 | 36688 | 0.68 | 1.3E+00 | AJ223662.1 | NT | w088a07.x1 NCJ_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2462100 3' |
| 10031 | 23069 | 36689 | 0.68 | 1.3E+00 | AJ223662.1 | NT | Lactobacillus lactis cremoris NCDO-inv1 chromosomal inversion junction DNA |
| 10070 | 23109 | 36711 | 3.93 | 1.3E+00 | BE963379.2 | EST_HUMAN | Lactobacillus lactis cremoris NCDO-inv1 chromosomal inversion junction DNA |
| 10130 | 23169 | | 0.57 | 1.3E+00 | A1559944.1 | EST_HUMAN | 601657145R1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:2214814 3' similar to gb:X14723 |
| 10353 | 23389 | 36906 | 0.5 | 1.3E+00 | AF061251.1 | NT | CLUSTERIN PRECURSOR (HUMAN); |
| 10353 | 23388 | 36907 | 0.5 | 1.3E+00 | AF061251.1 | NT | Escherichia coli serotype O157:H7 O antigen gene cluster |
| 10418 | 23453 | 37059 | 1.68 | 1.3E+00 | AE004392.1 | NT | Escherichia coli serotype O157:H7 O antigen gene cluster |
| 10435 | 23470 | 37076 | 1.59 | 1.3E+00 | M28953.1 | NT | Vibrio cholerae chromosome II, section 49 of 93 of the complete chromosome |
| 10811 | 23844 | | 0.89 | 1.3E+00 | AL163302.2 | NT | Campylobacter jejuni kanamycin phosphotransferase (aphA-7) gene, complete cds |
| 10838 | 23871 | 37493 | 0.47 | 1.3E+00 | A1890846.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C102 |
| 10851 | 23884 | | 0.53 | 1.3E+00 | 8923637 | NT | w032a10.x1 NCJ_CGAP_GC3 Homo sapiens cDNA clone IMAGE:2488922 3' similar to SW:TRXB_HUMAN |
| | | | | | | | Q16881 THIOREDOXIN REDUCTASE ; |
| | | | | | | | Homo sapiens hypothetical protein FLJ20707 (FLJ20707), mRNA |

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|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 10854 | 23887 | 37506 | 0.46 | 1.3E+00 | 7949159 | NT | Mus musculus vesicle-associated membrane protein 4 (Vamp4), mRNA |
| 10854 | 23887 | 37507 | 0.46 | 1.3E+00 | 7949159 | NT | Mus musculus vesicle-associated membrane protein 4 (Vamp4), mRNA |
| 10861 | 23894 | 37516 | 0.46 | 1.3E+00 | H42881.1 | EST_HUMAN | yo88c03.s1 Soares breast 3Nb-HBst Homo sapiens cDNA clone IMAGE:183076 3' |
| 10861 | 23894 | 37516 | 0.46 | 1.3E+00 | H42881.1 | EST_HUMAN | yo88c03.s1 Soares breast 3Nb-HBst Homo sapiens cDNA clone IMAGE:183076 3' |
| 10832 | 24014 | | 4.05 | 1.3E+00 | Q14117 | SWISSPROT | DIHYDROPYRIMIDINASE (DHPASE) (HYDANTOINASE) (DHP) |
| 11145 | 24217 | 37844 | 2.4 | 1.3E+00 | P25289 | SWISSPROT | MRNA 3'-END PROCESSING PROTEIN RNA15 |
| 11169 | 24240 | 37872 | 1.77 | 1.3E+00 | Z18692.2 | NT | Mus musculus desmin gene |
| 11619 | 24670 | | 1.43 | 1.3E+00 | AW274791.1 | EST_HUMAN | xp09603.x1 NC1 CGAP JH9 Homo sapiens cDNA clone IMAGE:2739868 3' |
| 11831 | 24820 | 38511 | 2.73 | 1.3E+00 | D42042.1 | NT | Human mRNA for KIAA0085 gene, partial cds |
| 11823 | 24909 | 38610 | 2.28 | 1.3E+00 | Z98692.1 | NT | Bacillus subtilis genomic DNA 23.9kB fragment |
| 11894 | 24979 | | 1.35 | 1.3E+00 | L31891.1 | NT | Arabidopsis thaliana 3-ketoadyl-acyl carrier protein synthase III (KAS III) mRNA, complete cds |
| 12604 | 26347 | | 3.81 | 1.3E+00 | AF187873.1 | NT | Cavia porcellus inwardly-rectifying potassium channel Kir2.2 (KCNJ12) gene, complete cds |
| 12698 | 25486 | 32022 | 2.76 | 1.3E+00 | BF348043.1 | EST_HUMAN | 802023165F1 NC1 CGAP_Bn67 Homo sapiens cDNA clone IMAGE:4158452 5' |
| 12707 | 25899 | | 1.98 | 1.3E+00 | P33464 | SWISSPROT | ET GLYCOPROTEIN PRECURSOR (MATRIX GLYCOPROTEIN) (MEMBRANE GLYCOPROTEIN) |
| 12822 | 25549 | | 1.53 | 1.3E+00 | AF187035.1 | NT | Stimula ilium cytochrome b gene, complete cds; mitochondrial gene for mitochondrial product |
| 13200 | 25783 | | 1.34 | 1.3E+00 | U38978.1 | NT | Naphthalenesulfonate-degrading bacterium BN6 2,3-dihydroxybiphenyl dioxygenase (bphCII) gene, complete cds |
| 13231 | 25981 | | 1.63 | 1.3E+00 | AL163283.2 | NT | Homo sapiens chromosome 21 segment HS21C083 |
| 687 | 13853 | 26881 | 8.73 | 1.2E+00 | AA376246.1 | EST_HUMAN | 222408.s1 Soares fetal_liver_spleen_NRLS_S1 Homo sapiens cDNA clone IMAGE:431635 3' |
| 846 | 14024 | 27082 | 1.52 | 1.2E+00 | P05228 | SWISSPROT | HISTIDINE-RICH PROTEIN PRECURSOR (CLONE PFH-RP-III) |
| 846 | 14024 | 27083 | 1.52 | 1.2E+00 | P05228 | SWISSPROT | HISTIDINE-RICH PROTEIN PRECURSOR (CLONE PFH-RP-III) |
| 846 | 14024 | 27084 | 1.52 | 1.2E+00 | P05228 | SWISSPROT | HISTIDINE-RICH PROTEIN PRECURSOR (CLONE PFH-RP-III) |
| 601 | 14076 | | 1.21 | 1.2E+00 | 8924234 | NT | Homo sapiens hypothetical protein PRO3077 (PRO3077), mRNA |
| 1187 | 14349 | 27407 | 7.6 | 1.2E+00 | AF080245.2 | NT | Elaeis oleifera sesquiterpene synthase mRNA, complete cds |
| 1232 | 14391 | 27453 | 1.71 | 1.2E+00 | AJ252242.1 | NT | pea seed-borne mosaic virus complete genome |
| 1232 | 14391 | 27454 | 1.71 | 1.2E+00 | AJ252242.1 | NT | pea seed-borne mosaic virus complete genome |
| 2066 | 15207 | 28323 | 1.02 | 1.2E+00 | AF140631.1 | NT | Homo sapiens G-protein coupled receptor 14 (GPR14) gene, complete cds |
| 3179 | 16354 | 29359 | 1.06 | 1.2E+00 | AB020681.1 | NT | Homo sapiens mRNA for KIAA0874 protein, partial cds |
| 3234 | 16409 | 29421 | 7.01 | 1.2E+00 | AL161663.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 63 |
| 3234 | 16408 | 29422 | 7.01 | 1.2E+00 | AL161663.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 63 |
| 3358 | 16530 | | 3.37 | 1.2E+00 | P54910 | SWISSPROT | CONJUGAL TRANSFER PROTEIN TRBE PRECURSOR |
| 3437 | 16605 | 29625 | 0.81 | 1.2E+00 | AF188740.1 | NT | Homo sapiens LHX3 gene, intron 2 |
| 3804 | 16964 | 29987 | 8.16 | 1.2E+00 | U75902.1 | NT | Mus musculus subtilisin-like serine protease LPC (PC7) gene, exons 1 to 9, partial cds |
| 4084 | 17249 | 30254 | 1.87 | 1.2E+00 | BF373570.1 | EST_HUMAN | MRO-FT0175-050900-209-g08_1 FT0175 Homo sapiens cDNA |

Page 24 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 4413 | 16805 | 28625 | 1.08 | 1.2E+00 | AF168740.1 | NT | Homo sapiens LHX3 gene, intron 2 |
| 4594 | 17731 | | 1.91 | 1.2E+00 | M87060.1 | NT | Rattus rattus cardiac AE3 gene, exons 1-23 |
| 4645 | 17761 | 30763 | 0.94 | 1.2E+00 | AL161509.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 21 |
| 4882 | 17817 | 30805 | 2.03 | 1.2E+00 | AF156495.1 | NT | Homo sapiens post-synaptic density 95 (DLG4) gene, complete cds |
| 4712 | 17847 | | 6.6 | 1.2E+00 | Y08200.1 | NT | T. phaeum chloroplast rbcL gene, partial |
| 5554 | 18761 | 31788 | 1.13 | 1.2E+00 | U20760.1 | NT | Human extracellular calcium-sensing receptor mRNA, complete cds |
| 6872 | 18866 | 32162 | 2.34 | 1.2E+00 | AW813276.1 | EST_HUMAN | MR3-ST0191-140200-013-c05 ST0191 Homo sapiens cDNA |
| 5917 | 19105 | | 0.65 | 1.2E+00 | X81879.1 | NT | Calceivirus cDNA for arf1, arf2 and arf3 |
| 6996 | 19180 | 32802 | 0.77 | 1.2E+00 | AF016052.1 | NT | Homo sapiens zinc finger protein ZNF191 (ZNF191) gene, complete cds |
| 6280 | 19454 | 32802 | 2.45 | 1.2E+00 | X74885.1 | NT | D. hydei ey1 repeat cluster DNA, fragment D |
| 6342 | 19512 | 32869 | 3.81 | 1.2E+00 | BE003113.1 | EST_HUMAN | QY4-BN0090-270400-190-a03 BN0090 Homo sapiens cDNA |
| 6420 | 19689 | 32853 | 1.28 | 1.2E+00 | X89084.1 | NT | G. glutamicum pta gene and ackA gene |
| 6420 | 19689 | 32854 | 1.28 | 1.2E+00 | X89084.1 | NT | C. glutamicum pta gene and ackA gene |
| 6463 | 19630 | 32991 | 36.06 | 1.2E+00 | AA789254.1 | EST_HUMAN | ar64g12.s1 Soares_testis_NHT Homo sapiens cDNA clone 1322374.3' |
| | | | | | | | Y39512.s1 Soares melanocyte 2NHM Homo sapiens cDNA clone IMAGE:273599 3' similar to |
| | | | | | | | gblm87835HUMAAU472 Human carcinoma cell-derived Alu RNA transcript, (rRNA); gb:J04970 |
| 8566 | 19728 | 33105 | | 1.2E+00 | N83295.1 | EST_HUMAN | CARBOXYPEPTIDASE M PRECURSOR (HUMAN); |
| 8630 | 19760 | 33178 | 0.73 | 1.2E+00 | P17671 | SWISSPROT | ECDOYSONE-INDUCIBLE PROTEIN E75-A |
| 6634 | 19763 | 33182 | 0.62 | 1.2E+00 | AW813278.1 | EST_HUMAN | MR3-ST0191-140200-013-c05 ST0191 Homo sapiens cDNA |
| 7055 | 20108 | 33524 | 1.72 | 1.2E+00 | AB028010.1 | NT | Homo sapiens mRNA for KIAA1087 protein, partial cds |
| 7067 | 20120 | 33534 | 2.81 | 1.2E+00 | AJ002141.1 | NT | Mus musculus DSPP gene |
| | | | | | | | zq3805.f1 Stragene hNT neuron (8637233) Homo sapiens cDNA clone IMAGE:632001 5' similar to |
| 7180 | 20342 | 33755 | 0.68 | 1.2E+00 | AA167810.1 | EST_HUMAN | gb:D10522 Human mRNA for 80K-L protein, complete cds. (HUMAN); |
| 7403 | 20481 | | 0.71 | 1.2E+00 | AJ271735.1 | NT | Homo sapiens Xq pseudobulbar region; segment 1/2 |
| 7542 | 25847 | 34092 | 1.85 | 1.2E+00 | AV734595.1 | EST_HUMAN | AV734595 cda Homo sapiens cDNA clone cdaAFH03 5' |
| 7828 | 20883 | 34385 | 2.91 | 1.2E+00 | X74207.1 | NT | L. lactis prfD and prfF genes |
| 7897 | 21047 | 34560 | 0.6 | 1.2E+00 | BE787846.1 | EST_HUMAN | 607481791.F1 NIH_MGC 69 Homo sapiens cDNA clone IMAGE:3884270 5' |
| 8767 | 21848 | 35387 | 3.19 | 1.2E+00 | AB030303.1 | NT | Homo sapiens mRNA for KIAA1204 protein, partial cds |
| | | | | | | | ALPHA-ALPHA-TREHALOSE-PHOSPHATE SYNTHASE (UDP-GLUCOSE-GLUCOSEPHOSPHATE |
| | | | | | | | GLUCOSYLTRANSFERASE) |
| 8863 | 21942 | 35477 | 0.82 | 1.2E+00 | P38427 | SWISSPROT | Homo sapiens CGI-30 protein (LOC51811), mRNA |
| 9077 | 22166 | | 0.7 | 1.2E+00 | 7708271 | NT | MR2-CT0222-201099-001-e07 CT0222 Homo sapiens cDNA |
| 9226 | 22304 | 35847 | 1.81 | 1.2E+00 | AW377210.1 | EST_HUMAN | Y680a06.f1 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:202066 5' |
| 9440 | 22514 | 36078 | 0.51 | 1.2E+00 | H48589.1 | EST_HUMAN | |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 9598 | 22653 | 36224 | 3.79 | 1.2E+00 | Z32850.1 | NT | R.communis gene for pyrophosphate-dependent phosphofructokinase beta subunit |
| 9805 | 22845 | 36423 | 2.13 | 1.2E+00 | D11745.1 | EST_HUMAN | HUMHMD1A01 Liver HepG2 cell line. Homo sapiens cDNA clone hm01a01 |
| 10135 | 23173 | 36771 | 3.6 | 1.2E+00 | X66832.1 | NT | H.sapiens ENO3 gene for muscle specific enolase |
| 10532 | 23597 | | 0.82 | 1.2E+00 | AB009668.1 | NT | Homo sapiens h10tho gene, exon 1 |
| 11432 | 24483 | 38158 | 1.69 | 1.2E+00 | M36686.1 | NT | Mus musculus h1 gene, exon 1 |
| 11627 | 24707 | 38400 | 1.51 | 1.2E+00 | AW817817.1 | EST_HUMAN | PMD-ST0284-16189-001-d01 ST0284 Homo sapiens cDNA |
| 11688 | 24743 | | 7.69 | 1.2E+00 | BE160761.1 | EST_HUMAN | PM1-HIT0422-160200-007-g10 HT0422 Homo sapiens cDNA |
| 11744 | 25930 | 37556 | 3.13 | 1.2E+00 | U50147.1 | NT | Rattus norvegicus synapse-associated protein 102 mRNA, complete cds |
| 12101 | 25981 | 38788 | 1.68 | 1.2E+00 | M10408.1 | NT | Mitochondrial F0-A1Tase proteolipid (subunit 6) gene |
| 12471 | 25984 | 31768 | 17.76 | 1.2E+00 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 12491 | 25338 | | 1.74 | 1.2E+00 | AP001515.1 | NT | Bacillus halodurans genomic DNA, section 8/14 |
| 13218 | 25793 | | 2.66 | 1.2E+00 | AA077609.1 | EST_HUMAN | 7H11A08 Chromosome 7 HeLa cDNA Library Homo sapiens cDNA clone 7H11A08 |
| 476 | 13871 | 28703 | 1.11 | 1.1E+00 | D86880.1 | NT | Human mRNA for KIAA0227 gene, partial cds |
| 1802 | 14951 | 28045 | 1.23 | 1.1E+00 | AW695393.1 | EST_HUMAN | QVO-BN0042-170300-163-g12 BN0042 Homo sapiens cDNA |
| 1848 | 15091 | 28192 | 1.21 | 1.1E+00 | AW575889.1 | EST_HUMAN | UI-HF-BR0p-ajk-f02-q-UJ.s1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:3074634 3' |
| 2017 | 15157 | | 2.74 | 1.1E+00 | AF137273.1 | NT | Gallus gallus alpha 1 (V) collagen mRNA, complete cds |
| 3409 | 16579 | 28594 | 8.86 | 1.1E+00 | AL163213.2 | NT | Homo sapiens chromosome 21 segment HS21C013 |
| 3409 | 16579 | 28595 | 8.86 | 1.1E+00 | AL163213.2 | NT | Homo sapiens chromosome 21 segment HS21C013 |
| 3575 | 16740 | 28757 | 1.02 | 1.1E+00 | 8922841 | NT | Homo sapiens hypothetical protein FLJ10749 (FLJ10749), mRNA |
| 3670 | 16833 | 28844 | 0.99 | 1.1E+00 | AI808380.1 | EST_HUMAN | wf64h11.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2359481 3' similar to |
| 3812 | 16972 | 28974 | 1.16 | 1.1E+00 | AE003898.1 | NT | SWP331_HUMAN Q12888 P53-BINDING PROTEIN 53BP1; |
| 3812 | 16972 | 28975 | 1.16 | 1.1E+00 | AE003898.1 | NT | Xyella fastidiosa, section 32 of 229 of the complete genome |
| 3820 | 17079 | | 0.92 | 1.1E+00 | X85374.1 | NT | Xyella fastidiosa, section 32 of 229 of the complete genome |
| 4054 | 17210 | 30220 | 1.03 | 1.1E+00 | 8922841 | NT | H. parahaemolyticus hphIM(A), hphIR and menB genes |
| 4130 | 17293 | 30278 | 0.72 | 1.1E+00 | 8755205 | NT | Homo sapiens hypothetical protein FLJ10749 (FLJ10749), mRNA |
| 4331 | 17474 | | 6.82 | 1.1E+00 | 5935331 | NT | Mus musculus proteasome (prosome, macropain) subunit, beta type 7 (Psmb7), mRNA |
| 5107 | 18235 | 31204 | 3.45 | 1.1E+00 | U18466.1 | NT | R. unicomis complete mitochondrial genome |
| 5180 | 18302 | 31295 | 2.06 | 1.1E+00 | X78425.1 | NT | African swine fever virus, complete genome |
| 5422 | 18623 | 31599 | 1.49 | 1.1E+00 | 6978530 | NT | E.faecalis pbp5 gene |
| 5731 | 18924 | 32218 | 14.33 | 1.1E+00 | BE960184.1 | EST_HUMAN | Rattus norvegicus Aquaporin 4 (Aqp4), mRNA |
| 5760 | 18942 | 32243 | 1.32 | 1.1E+00 | AI138582.1 | EST_HUMAN | 601652776R1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3825835 3' |
| | | | | | | | qd85c03.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1738260 3' |
| 6217 | 18392 | 32740 | 0.9 | 1.1E+00 | 11419739 | NT | Homo sapiens solute carrier family 6 (neurotransmitter transporter), member 14 (SLC6A14), mRNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8404 | 19573 | 32936 | 0.59 | 1.1E+00 | AF197861.1 | NT | Macgregoria pulchra cytochrome b gene, complete cds; mitochondrial gene for mitochondrial product |
| 8537 | 19700 | 33073 | 0.72 | 1.1E+00 | R06037.1 | EST_HUMAN | ye80e03.r1 Scars fetal liver spleen 1NFS Homo sapiens cDNA clone IMAGE:124924 5' |
| 8656 | 20009 | 33419 | 0.78 | 1.1E+00 | AJ404004.1 | NT | Mus musculus mRNA for ER protein 68 (EP68 gene) |
| 7447 | 20524 | 33997 | 0.58 | 1.1E+00 | X55981.1 | NT | Maize mRNA for endase (2-phospho-D-glycerate hydrolase) |
| 7632 | 20701 | 34179 | 0.87 | 1.1E+00 | BF683714.1 | EST_HUMAN | 602139978F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4301322 5' |
| 7659 | 20726 | 34201 | 2.23 | 1.1E+00 | Z72338.1 | NT | Herpes simplex virus type 1 (strain KOS) UL41 gene |
| 7659 | 20728 | 34202 | 2.23 | 1.1E+00 | Z72338.1 | NT | Herpes simplex virus type 1 (strain KOS) UL41 gene |
| 7680 | 20745 | 34226 | 8.35 | 1.1E+00 | AL161588.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 84 |
| 7754 | 25853 | 34305 | 1.04 | 1.1E+00 | 11897890 | NT | Mus musculus silent mating type information regulation 2, (S.cerovialis, homolog)-like (Sir2), mRNA |
| 8325 | 21407 | 34934 | 3.2 | 1.1E+00 | BF693996.1 | EST_HUMAN | 602082582F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4246628 5' |
| 8416 | 21497 | 35029 | 0.91 | 1.1E+00 | AI476339.1 | EST_HUMAN | hm39h11.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2180549 3' |
| 8535 | 22014 | 35554 | 0.86 | 1.1E+00 | AB003083.1 | NT | Acetabularia calliculus mitochondrial COX2-like gene |
| 9016 | 22084 | 35534 | 0.87 | 1.1E+00 | S80750.1 | NT | VH-anti-cytomegalovirus glycoprotein B antibody 4D4 heavy chain variable region [human, mRNA Partial, 376 nt] |
| 9128 | 22205 | 35748 | 0.53 | 1.1E+00 | AI078946.1 | EST_HUMAN | 023405.x1 Scars NIHMPu_S1 Homo sapiens cDNA clone IMAGE:1677249 3' |
| 9837 | 21080 | 36348 | 0.76 | 1.1E+00 | BE384876.1 | EST_HUMAN | 601278278F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3817418 5' |
| 9828 | 22898 | 36450 | 0.61 | 1.1E+00 | AJ245772.1 | NT | Mus musculus mRNA for stretch responsive muscle (X-chromosome) protein (Srmx gene) |
| 9883 | 22923 | | 0.81 | 1.1E+00 | Y12227.1 | NT | Arabidopsis thaliana DNA, 24 kb surrounding PFL locus |
| 9974 | 23013 | 36607 | 1.03 | 1.1E+00 | L76301.1 | NT | Yersinia pseudotuberculosis pseE, pseF, adhesin (psaA), chaperone (psaB), and usher (psaC) genes, complete cds |
| 10038 | 23078 | 36976 | 1.85 | 1.1E+00 | AB023151.1 | NT | Homo sapiens mRNA for KIAA0834 protein, partial cds |
| 10141 | 23179 | 36777 | 4.08 | 1.1E+00 | AL161513.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 27 |
| 10202 | 23239 | 36829 | 20.74 | 1.1E+00 | 6754021 | NT | Mus musculus guanine nucleotide binding protein (G protein), gamma 3 subunit (Gng3), mRNA |
| 10719 | 23752 | 37356 | 1.21 | 1.1E+00 | P73769 | SWISSPROT | DNA MISMATCH REPAIR PROTEIN MUTS |
| 10831 | 23864 | 37486 | 0.56 | 1.1E+00 | AI878921.1 | EST_HUMAN | au51c11.y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2516282 5' similar to gb:U10522 |
| 10886 | 23970 | 37600 | 1.97 | 1.1E+00 | 11067364 | NT | Human mRNA for 80K-L protein, complete cds, (HUMAN); |
| 10947 | 24029 | | 3.14 | 1.1E+00 | AF068942.1 | NT | Klbasaridium fluitans cytochrome c oxidase subunit 2 (cox2) gene, mitochondrial gene encoding mitochondrial protein, partial cds |
| 11343 | 24408 | 38055 | 3.72 | 1.1E+00 | L16877.1 | NT | Homo sapiens cytochrome P-450C9 (CYP2C9) gene, 5' flank and exon 1 |
| 11361 | 18489 | | 2.74 | 1.1E+00 | 8822873 | NT | Homo sapiens hypothetical protein FLJ11280 (FLJ11280), mRNA |

Page 27 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 11368 | 24427 | 38083 | 2.93 | 1.1E+00 | AF012862.1 | NT | Petroselinum crispum cytosolic glucose-6-phosphate dehydrogenase 1 (cG6PDH1) mRNA, complete cds |
| 11368 | 24427 | 38084 | 2.93 | 1.1E+00 | AF012862.1 | NT | Petroselinum crispum cytosolic glucose-6-phosphate dehydrogenase 1 (cG6PDH1) mRNA, complete cds |
| 11637 | 24717 | 38409 | 3.99 | 1.1E+00 | AB09689.1 | EST_HUMAN | wf76511.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2361548 3' |
| 11870 | 24858 | 38552 | 1.38 | 1.1E+00 | D88501.1 | NT | Human PBI gene, complete cds |
| 11870 | 24858 | 38553 | 1.38 | 1.1E+00 | D88501.1 | NT | Human PBI gene, complete cds |
| 12441 | 25312 | | 1.82 | 1.1E+00 | P07868 | SWISSPROT | LOW TEMPERATURE ESSENTIAL PROTEIN |
| 12547 | 25371 | 32070 | 3.56 | 1.1E+00 | AF21695.1 | NT | Taenia solium immunogenic protein T678 mRNA, partial cds |
| 12580 | 25990 | | 1.88 | 1.1E+00 | AF234168.1 | NT | Dicystellum discoidium isopentenyl pyrophosphate isomerase (Dipl) mRNA, complete cds |
| 101 | 13347 | 26374 | 1.84 | 1.0E+00 | U23808.1 | NT | Xenopus laevis rhodopsin gene, complete cds |
| 116 | 13347 | 26374 | 2.1 | 1.0E+00 | D88425.1 | NT | Cavia cubaya mRNA for serine/threonine kinase, complete cds |
| 431 | 13626 | | -2.78 | 1.0E+00 | AB021684.1 | NT | Merhantha polymorpha genes for 28S rRNA, 5S rRNA, 18S rRNA, 5.8S rRNA and 26S rRNA |
| 590 | 13781 | 26800 | 1.44 | 1.0E+00 | AJ251680.1 | NT | Giardia tigrina mRNA for homeodomain transcription factor (so gene) |
| 694 | 13877 | 26910 | 7.14 | 1.0E+00 | AL163216.2 | NT | Homo sapiens chromosome 21 segment HS21C018 |
| 696 | 13879 | | 2.29 | 1.0E+00 | AF126984.1 | NT | Aedes aegypti mucin-like protein MUC1 mRNA, complete cds |
| 1417 | 16037 | | 1.35 | 1.0E+00 | X80416.1 | NT | V.carteri Algal-CAM mRNA |
| 1795 | 14944 | 28037 | 1.33 | 1.0E+00 | AB006831.1 | NT | Plautia stali intestine virus RNA for nonstructural polyprotein, capsid protein precursor, complete cds |
| 2554 | 15678 | 28803 | 1.11 | 1.0E+00 | P48355 | SWISSPROT | DNA GYRASE SUBUNIT B |
| 2554 | 15678 | 28804 | 1.11 | 1.0E+00 | P48355 | SWISSPROT | DNA GYRASE SUBUNIT B |
| 2821 | 15744 | | 0.95 | 1.0E+00 | AA628453.1 | EST_HUMAN | af26908.at Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:1032830 3' similar to WP:G42D8.3 CE04204; contains element MER22 MER22 repetitive element; |
| 2940 | 16117 | 29129 | 4.51 | 1.0E+00 | P24008 | SWISSPROT | 3-OXO-5-ALPHA-STEROID 4-DEHYDROGENASE 1 (STEROID 5-ALPHA-REDUCTASE 1) (SR TYPE 1) |
| 2940 | 16117 | 29130 | 4.51 | 1.0E+00 | P24008 | SWISSPROT | 3-OXO-5-ALPHA-STEROID 4-DEHYDROGENASE 1 (STEROID 5-ALPHA-REDUCTASE 1) (SR TYPE 1) |
| 3032 | 16208 | | 0.95 | 1.0E+00 | O14228 | SWISSPROT | HYPOPHOSPHATE 67.9 KD PROTEIN C9F12.08C IN CHROMOSOME 1 |
| 3269 | 16443 | 29463 | 1.16 | 1.0E+00 | AA628453.1 | EST_HUMAN | af26908.at Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:1032830 3' similar to WP:G42D8.3 CE04204; contains element MER22 MER22 repetitive element; |
| 3459 | 16828 | | 0.73 | 1.0E+00 | AF222761.1 | NT | Rattus norvegicus neurotrophin U precursor (NtnU) gene, exons 5 and 6 |
| 3688 | 13337 | | 0.75 | 1.0E+00 | U23808.1 | NT | Xenopus laevis rhodopsin gene, complete cds |
| 3772 | 16933 | 29539 | 1.61 | 1.0E+00 | AJ223816.1 | NT | Agericus bisporus mRNA for lysozyme |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 4180 | 17330 | 30322 | 1.12 | 1.0E+00 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-48, and partial cds, alternatively spliced |
| 4390 | 17533 | | 0.72 | 1.0E+00 | 8922246 | NT | Homo sapiens hypothetical protein FLJ10139 (FLJ10139), mRNA |
| 5398 | 18598 | 31568 | 2.3 | 1.0E+00 | Z97022.1 | NT | Hordeum vulgare gene encoding cyclinoh proteinase |
| 5971 | 19157 | 32472 | 4.38 | 1.0E+00 | AF248054.1 | NT | Bos taurus micromolar calcium activated neutral protease 1 (CAPN1) gene, exons 11-20, and partial cds |
| 5971 | 19157 | 32473 | 4.38 | 1.0E+00 | AF248054.1 | NT | Bos taurus micromolar calcium activated neutral protease 1 (CAPN1) gene, exons 11-20, and partial cds |
| 6077 | 19259 | 32588 | 1.74 | 1.0E+00 | Z97341.2 | NT | Arabidopsis thaliana DNA chromosome 4, ESSA1 FCA contig fragment No. 6 |
| 8241 | 19415 | 32763 | 4.85 | 1.0E+00 | P04501 | SWISSPROT | FIBER PROTEIN |
| 8248 | 19422 | 32788 | 1.67 | 1.0E+00 | AW452782.1 | EST_HUMAN | U1-H-B13-ek-d-08-0-U1.s1 NCI CGAP_Sub5 Homo sapiens cDNA clone IMAGE:3088969 3' |
| 8618 | 19778 | 33167 | 2.04 | 1.0E+00 | U75902.1 | NT | Mus musculus subtilisin-like serine protease LPC (P-C7) gene, exons 1 to 9, partial cds |
| 6671 | 19830 | 33210 | 0.83 | 1.0E+00 | AF104689.1 | NT | Homo sapiens cell cycle protein (PA2G34) gene, exons 2 through 5 |
| 6707 | 19823 | | 1.07 | 1.0E+00 | P46506 | SWISSPROT | SFB-11 PROTEIN |
| 6795 | 19950 | 33349 | 0.82 | 1.0E+00 | BE797716.1 | EST_HUMAN | 601581891F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3936382 5' |
| 6795 | 19950 | 33350 | 0.82 | 1.0E+00 | BE797716.1 | EST_HUMAN | 601581891F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3936382 5' |
| 8918 | 20231 | 33684 | 1.27 | 1.0E+00 | Y11204.1 | NT | V. carteri gene encoding veloxepsin |
| 7288 | 20371 | 33826 | 1.15 | 1.0E+00 | S52770.1 | NT | Insulin-like growth factor-binding protein 4 (cattle, pulmonary artery endothelial cells, mRNA, 2028 nt) |
| 7647 | 20716 | | | | | | B-CELL RECEPTOR CD22 PRECURSOR (LEU-14) (B-LYMPHOCYTE CELL ADHESION MOLECULE) |
| 7889 | 20941 | 34447 | 9.68 | 1.0E+00 | P20273 | SWISSPROT | (BL-CAM) |
| 7903 | 20955 | 34462 | 1.51 | 1.0E+00 | AF192531.1 | NT | Homo sapiens endothelin-converting enzyme 2 (ECE2) mRNA, complete cds |
| 8019 | 21070 | | 6.02 | 1.0E+00 | AA775191.1 | EST_HUMAN | ac79b08.s1 Stratagene lung (8937210) Homo sapiens cDNA clone IMAGE:868781 3' |
| 8148 | 21230 | 34749 | 0.72 | 1.0E+00 | BF879213.1 | EST_HUMAN | 602163792F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4294727 5' |
| 8148 | 21230 | 34750 | 1.65 | 1.0E+00 | BE868287.1 | EST_HUMAN | 601443650F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3848005 5' |
| 8335 | 19496 | | 1.55 | 1.0E+00 | BE868287.1 | EST_HUMAN | 601443650F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3848005 5' |
| | | | 1.46 | 1.0E+00 | D10852.1 | NT | Rattus norvegicus mRNA for N-acetylglucosaminyltransferase III, complete cds |
| | | | | | | | PEROXISOMAL HYDRATASE-DEHYDROGENASE-EPIMERASE (HDE) (MULTIFUNCTIONAL BETA-OXIDATION PROTEIN) (MFP) [INCLUDES: 2-ENOYL-COA HYDRATASE; D-3-HYDROXYACYL COA DEHYDROGENASE] |
| 8545 | 21626 | 35163 | 2.59 | 1.0E+00 | Q02207 | SWISSPROT | PEROXISOMAL HYDRATASE-DEHYDROGENASE-EPIMERASE (HDE) (MULTIFUNCTIONAL BETA-OXIDATION PROTEIN) (MFP) [INCLUDES: 2-ENOYL-COA HYDRATASE; D-3-HYDROXYACYL COA DEHYDROGENASE] |
| 8545 | 21626 | 35164 | 2.59 | 1.0E+00 | Q02207 | SWISSPROT | PEROXISOMAL HYDRATASE-DEHYDROGENASE-EPIMERASE (HDE) (MULTIFUNCTIONAL BETA-OXIDATION PROTEIN) (MFP) [INCLUDES: 2-ENOYL-COA HYDRATASE; D-3-HYDROXYACYL COA DEHYDROGENASE] |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8872 | 21762 | | 1.07 | 1.0E+00 | P51784 | SWISSPROT | UBIQUITIN CARBOXYL-TERMINAL HYDROLASE 11 (UBIQUITIN THIOLESTERASE 11)(UBIQUITIN-SPECIFIC PROCESSING PROTEASE 11)(DEUBIQUITINATING ENZYME 11) |
| 8708 | 21788 | 35321 | 0.54 | 1.0E+00 | Q9Y6T6 | SWISSPROT | UBIQUITIN CARBOXYL-TERMINAL HYDROLASE 16 (UBIQUITIN THIOLESTERASE 16)(UBIQUITIN-SPECIFIC PROCESSING PROTEASE 16)(DEUBIQUITINATING ENZYME 16)(UBIQUITIN PROCESSING PROTEASE UBPM) |
| 8708 | 21788 | 35322 | 0.64 | 1.0E+00 | Q9Y6T5 | SWISSPROT | UBIQUITIN CARBOXYL-TERMINAL HYDROLASE 16 (UBIQUITIN THIOLESTERASE 16)(UBIQUITIN-SPECIFIC PROCESSING PROTEASE 16)(DEUBIQUITINATING ENZYME 16)(UBIQUITIN PROCESSING PROTEASE UBPM) |
| 8735 | 25858 | | 1.82 | 1.0E+00 | BE147331.1 | EST_HUMAN | RC1-H10228-181089-011-e06 H10228 Homo sapiens cDNA |
| 8778 | 21855 | 35397 | 1.15 | 1.0E+00 | U42720.2 | NT | Simian Immunodeficiency virus Gag protein (gag) gene, complete cds; Pol protein (pol) gene, partial cds; and Vif protein (vif), Vpr protein (vpr), Tet protein (tat), Rev protein (rev), Env protein (env), and Nef protein (nef) genes. > |
| 8922 | 22001 | 35640 | 1.8 | 1.0E+00 | M38427.1 | NT | Human immunodeficiency virus type 1 (HIV-1), isolate SF33, |
| 9471 | 22528 | 36091 | 1.95 | 1.0E+00 | BE807592.1 | EST_HUMAN | 601497681F1 NIH_MGC 70 Homo sapiens cDNA clone IMAGE:3889421 5' |
| 9882 | 22731 | 36301 | 1.62 | 1.0E+00 | 6733428 | NT | Mus musculus chloride channel calcium activated 1 (Clca1), mRNA |
| 9882 | 22731 | 36302 | 1.62 | 1.0E+00 | 6733428 | NT | Mus musculus chloride channel calcium activated 1 (Clca1), mRNA |
| 9810 | 22850 | 38429 | 1.81 | 1.0E+00 | AV689554.1 | EST_HUMAN | AY689554 GKCC Homo sapiens cDNA clone GKCCYA11 5' |
| 9816 | 22856 | 38434 | 1.32 | 1.0E+00 | U44952.1 | NT | Xenopus laevis zona pellucida C glycoprotein precursor (XZPC) mRNA, complete cds |
| 9816 | 22856 | 38435 | 1.32 | 1.0E+00 | U44952.1 | NT | Xenopus laevis zona pellucida C glycoprotein precursor (XZPC) mRNA, complete cds |
| 10318 | 23353 | 36901 | 0.82 | 1.0E+00 | 5174562 | NT | Homo sapiens MHC binding factor, beta (MHCBFB) mRNA |
| 10318 | 23353 | 36902 | 0.82 | 1.0E+00 | 5174562 | NT | Homo sapiens MHC binding factor, beta (MHCBFB) mRNA |
| 10408 | 23443 | 37050 | 0.89 | 1.0E+00 | A1077820.1 | EST_HUMAN | 0V15407 s1 Soares_senescent fibroblasts, NbHSF Homo sapiens cDNA clone IMAGE:1665901 3' |
| 10533 | 23568 | 37175 | 3.99 | 1.0E+00 | AV758925.1 | EST_HUMAN | AV758925 BM Homo sapiens cDNA clone BMFAW C04 5' |
| 10694 | 23727 | 37333 | 19.71 | 1.0E+00 | AA004982.1 | EST_HUMAN | zh94a02.r1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:428906 6' |
| 10694 | 23727 | 37334 | 19.71 | 1.0E+00 | AA004982.1 | EST_HUMAN | zh94a02.r1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:428906 6' |
| 10728 | 23781 | 37368 | 1.22 | 1.0E+00 | L11910.1 | NT | Human retinoblastoma susceptibility gene exons 1-27, complete cds |
| 11216 | 24285 | 37824 | 1.37 | 1.0E+00 | S90825.1 | NT | PBR1-praline-rich protein (intrn 3) (human, Genbank, 898 nt) |
| 11342 | 24406 | 38054 | 1.46 | 1.0E+00 | AA701494.1 | EST_HUMAN | zh63b11 s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:435453 3' similar to contains Alu repetitive element/contains element MER38 repetitive element ; |
| 11825 | 24814 | | 1.82 | 1.0E+00 | L47613.1 | NT | Picea glauca EMB13 mRNA |
| 12329 | 25238 | | 5.49 | 1.0E+00 | P15306 | SWISSPROT | THROMBOMODULIN PRECURSOR (FETOMODULIN) (TM) |
| 12678 | 25451 | | 2.87 | 1.0E+00 | AW976184.1 | EST_HUMAN | EST388283 IMAGE ressequences, MAGN Homo sapiens cDNA |
| 3693 | 18855 | | 1.04 | 9.9E-01 | AF174586.1 | NT | Apple mosaic virus RNA 2 putative polymerase gene, complete cds |
| 5752 | 18944 | 32246 | 8.8 | 9.9E-01 | P49867 | SWISSPROT | SERINE/THREONINE PROTEIN KINASE MINIBRAIN |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 6990 | 19176 | 32488 | 0.83 | 9.9E-01 | Q09632 | SWISSPROT | PROBABLE OXIDOREDUCTASE ZK1280.5 IN CHROMOSOME II |
| 9461 | 22518 | | 1.68 | 9.9E-01 | U66667.1 | NT | Lycopodium esculentum putative M1 copy 1 nematode-resistance gene |
| 9765 | 22693 | | 2.14 | 9.9E-01 | Q28642 | SWISSPROT | B2 BRADYKININ RECEPTOR (BK-2 RECEPTOR) |
| 536 | 13729 | 26763 | 1.17 | 9.8E-01 | P22567 | SWISSPROT | AMINO-ACID ACETYLTRANSFERASE (N-ACETYL-GLUTAMATE SYNTHASE) (AGS) (NAGS) |
| 2370 | 15501 | | 1.26 | 9.8E-01 | AJ003108.1 | NT | Callitrix jacchus UBE1 gene derived retroposon on the Y chromosome |
| 2802 | 15976 | | 1.29 | 9.8E-01 | AF174644.1 | NT | Xenopus laevis rac GTPase mRNA, complete cds |
| 3903 | 17062 | 30061 | 0.67 | 9.8E-01 | BE857439.2 | EST_HUMAN | 601653583R2 NIH_MGC 55 Homo sapiens cDNA clone IMAGE:3838461 3' |
| 3903 | 17062 | 30062 | 0.67 | 9.8E-01 | BE857439.2 | EST_HUMAN | 601653583R2 NIH_MGC 55 Homo sapiens cDNA clone IMAGE:3838461 3' |
| 7349 | 20429 | 33880 | 4.42 | 9.8E-01 | AJ302158.1 | NT | Enterobacteriaceae sp. JM983 partial groES gene for GroES-like protein and partial groEL gene for GroEL-like protein, isolate JM983 |
| 7349 | 20429 | 33891 | 4.42 | 9.8E-01 | AJ302158.1 | NT | Enterobacteriaceae sp. JM983 partial groES gene for GroES-like protein and partial groEL gene for GroEL-like protein, isolate JM983 |
| 7823 | 20878 | 34378 | 1.14 | 9.8E-01 | BF034016.1 | EST_HUMAN | 601456337F1 NIH_MGC 66 Homo sapiens cDNA clone IMAGE:3860049 5' |
| 7823 | 20878 | 34379 | 1.14 | 9.8E-01 | BF034016.1 | EST_HUMAN | 601456337F1 NIH_MGC 66 Homo sapiens cDNA clone IMAGE:3860049 5' |
| 8916 | 21956 | 35534 | 0.94 | 9.8E-01 | P38652 | SWISSPROT | PHOSPHOGLUCOMUTASE (GLUCOSE PHOSPHOMUTASE) (PGM) |
| 10653 | 23687 | | 1.02 | 9.8E-01 | AA825585.1 | EST_HUMAN | 601110258F1 NIH_MGC 16 Homo sapiens cDNA clone IMAGE:3350750 5' |
| 11242 | 24311 | 37048 | 1.84 | 9.8E-01 | BE259705.1 | EST_HUMAN | 601110258F1 NIH_MGC 16 Homo sapiens cDNA clone IMAGE:3350750 5' |
| 11242 | 24311 | 37049 | 1.84 | 9.8E-01 | BE259705.1 | EST_HUMAN | 601110258F1 NIH_MGC 16 Homo sapiens cDNA clone IMAGE:3350750 5' |
| 12554 | 25377 | | 2.43 | 9.8E-01 | U52111.2 | NT | Homo sapiens X28 region near ALD locus containing dual specificity phosphatase 9 (DUSP9), ribosomal protein L18a (RPL18a), Ca2+/Calmodulin-dependent protein kinase I (CAMK1), creatine transporter (CRT1), CDM protein (CDM), adrenoleukodystrophy protein > |
| 7309 | 20391 | 33851 | 2.73 | 9.7E-01 | U26716.1 | NT | Drosophila melanogaster sodium channel protein (para) gene, exons 9, 10, 11, 12 and optional segments b, c, d and e, partial cds |
| 8701 | 21781 | 35314 | 1.9 | 9.7E-01 | AF149112.1 | NT | Trillium aestivum stripe rust resistance protein Yr10 (Yr10) gene, complete cds |
| 8707 | 21787 | 35320 | 1.94 | 9.7E-01 | M80544.1 | NT | Salmonella typhimurium adenine-methyltransferase (mtd) and restriction endonuclease (res) |
| 9039 | 22118 | 35661 | 0.73 | 9.7E-01 | BE789822.1 | EST_HUMAN | 601592165F1 NIH_MGC 7 Homo sapiens cDNA clone IMAGE:3945804 5' |
| 11444 | 24505 | | 3.56 | 9.7E-01 | BF511208.1 | EST_HUMAN | UI-H-B14-act-e-07-0-UI.s1 NCL CGAP Sub8 Homo sapiens cDNA clone IMAGE:3086140 3' |
| 13208 | 26789 | | 3.17 | 9.7E-01 | AL114281.1 | NT | Bolbitis chinensis strain T4 cDNA library under conditions of nitrogen deprivation |
| 4558 | 17696 | 30876 | 0.74 | 9.6E-01 | AF197925.1 | NT | Bronus inermis putative cytosolic phosphoglucomutase (pgm1) mRNA, complete cds |
| 4558 | 17696 | 30878 | 0.74 | 9.6E-01 | AF197925.1 | NT | Bronus inermis putative cytosolic phosphoglucomutase (pgm1) mRNA, complete cds |
| 4580 | 17717 | 30700 | 1.28 | 9.6E-01 | AW789674.1 | EST_HUMAN | PM2-UM0053-240300-005-F12 UM0053 Homo sapiens cDNA |
| 5872 | 19082 | 32369 | 3.51 | 9.6E-01 | Z70556.1 | NT | Parvovirus B19 DNA, patient C, genome position 2448-2894 |
| 5872 | 19082 | 32370 | 3.51 | 9.6E-01 | Z70556.1 | NT | Parvovirus B19 DNA, patient C, genome position 2448-2894 |
| 6886 | 20038 | 33447 | 0.6 | 9.6E-01 | Z97341.2 | NT | Arabidopsis thaliana DNA chromosome 4, ESSA1 FCA contig fragment No. 6 |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 7512 | 20586 | 34059 | 0.63 | 9.6E-01 | AF197881.1 | NT | Helix lucorum presenilin (PS) mRNA, complete cds |
| 8588 | 21687 | | 1.52 | 9.6E-01 | X85275.1 | NT | P. falciparum complete gene map of plastid-like DNA (R-A) |
| 8052 | 22131 | 35675 | 0.92 | 9.6E-01 | L81138.1 | NT | Rattus norvegicus (strain R21) Rps2i gene, complete cds |
| 11346 | 24408 | 38080 | 1.42 | 9.6E-01 | AF041427.1 | NT | Homo sapiens ribosomal protein s4 Y isoform gene, complete cds |
| 11808 | 24798 | 38496 | 3.91 | 9.6E-01 | AV752605.1 | EST_HUMAN | AV752605 NPD Homo sapiens cDNA clone NPDBAG06 5' |
| 11808 | 24798 | 38497 | 3.91 | 9.6E-01 | AV752605.1 | EST_HUMAN | AV752605 NPD Homo sapiens cDNA clone NPDBAG06 5' |
| 12225 | 26174 | | 1.31 | 9.6E-01 | 11421722 | NT | Homo sapiens centromeric protein 2 (CEP2), mRNA |
| 12915 | 26061 | 31656 | 1.68 | 9.6E-01 | U91423.1 | NT | Sphyrna uburo NADH dehydrogenase subunit 2 (NADH2) gene, mitochondrial gene encoding mitochondrial protein, partial cds |
| 2545 | 15670 | 28784 | 1.61 | 9.5E-01 | 7705591 | NT | Homo sapiens CGI-125 protein (LOC51003), mRNA |
| 3882 | 17041 | 30038 | 2.1 | 9.5E-01 | BE902340.1 | EST_HUMAN | 601676639F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3958473 5' |
| 3882 | 17041 | 30038 | 2.1 | 9.5E-01 | BE902340.1 | EST_HUMAN | 601676639F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3958473 5' |
| 9202 | 22280 | 35819 | 0.71 | 9.5E-01 | AI190192.1 | EST_HUMAN | qd57607.x1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:1733581 3' |
| 9306 | 22382 | 35933 | 1.04 | 9.5E-01 | AW861102.1 | EST_HUMAN | RC1-CT0295-241199-011-b02 CT0295 Homo sapiens cDNA |
| 11820 | 24576 | 38254 | 1.56 | 9.5E-01 | BF218771.1 | EST_HUMAN | 601889163F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4103630 5' |
| 11737 | 23923 | 37548 | 1.57 | 9.5E-01 | AW283789.1 | EST_HUMAN | UJ-H-B12-ahp-f03-Q-UJ.st NCI CGAP Sub4 Homo sapiens cDNA clone IMAGE:2727677 3' |
| 3271 | 16448 | | 5.72 | 9.4E-01 | AF165990.1 | NT | Bartonella claridigidae RNA polymerase beta subunit (rpoB) gene, partial cds |
| 3289 | 16463 | | 2.17 | 9.4E-01 | AF080686.1 | NT | Plasmodium brachycarpus zinc finger protein (ZFP1) mRNA, complete cds |
| 9068 | 22145 | 35692 | 0.79 | 9.4E-01 | M90724.1 | NT | Human Fe-gamma-receptor (FCGR2A) gene, exon 4 |
| 12498 | 25343 | | 1.86 | 9.4E-01 | BE761251.1 | EST_HUMAN | 601466703F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3868929 5' |
| 12914 | 25975 | | 1.4 | 9.4E-01 | 11419857 | NT | Homo sapiens epidermal growth factor receptor (avian erythroblastic leukemia viral (v-erb-b) oncogene homolog) (EGFR), mRNA |
| 1769 | 14918 | | 1.24 | 9.3E-01 | AF242382.1 | NT | Homo sapiens phytenoyl-CoA hydroxylase (PHYH) gene, exon 5 |
| 2699 | 15918 | 28934 | 3.62 | 9.3E-01 | BE071172.1 | EST_HUMAN | RC5-BT0503-271198-011-B01 BT0503 Homo sapiens cDNA |
| 4146 | 17288 | 30289 | 0.86 | 9.3E-01 | M20219.1 | NT | Bovine papillomavirus type 2, complete genome |
| 4146 | 17288 | 30289 | 0.86 | 9.3E-01 | M20219.1 | NT | Bovine papillomavirus type 2, complete genome |
| 5708 | 18902 | 32197 | 1.6 | 9.3E-01 | AF213884.1 | NT | Homo sapiens nuclear factor of kappa light polypeptide gene enhancer in B-cells 1 (NFKB1) gene, complete cds |
| 5705 | 18985 | 32289 | 3.48 | 9.3E-01 | L36189.1 | NT | Spodoptera frugiperda methylenetetrahydrofolate dehydrogenase mRNA, complete cds |
| 7486 | 20561 | | 1.08 | 9.3E-01 | AF270948.1 | NT | Plesmodium falciparum mature parasite-infected erythrocyte surface antigen (MESA) gene, complete cds |
| 8257 | 21339 | 34858 | 1.99 | 9.3E-01 | AA847040.1 | EST_HUMAN | ce09f03.s1 NCI CGAP OY2 Homo sapiens cDNA clone IMAGE:1385357 |
| 9013 | 22092 | | 1.1 | 9.3E-01 | AF081981.1 | NT | Xenopus laevis CCCC zinc finger protein C3H-2 (C3H-2) mRNA, complete cds |
| 9137 | 22216 | 35760 | 0.89 | 9.3E-01 | AL161634.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 34 |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 13039 | 25683 | 31881 | 2.09 | 9.3E-01 | 11440288 | NT | Homo sapiens inositol 1,4,5-triphosphate receptor, type 2 (ITPR2), mRNA |
| 13049 | 25688 | | 1.22 | 9.3E-01 | AF271207.1 | NT | Aedes triseriatus putative large subunit ribosomal protein rpl34 mRNA, complete cds |
| 3311 | 18484 | 29505 | 3.92 | 9.2E-01 | BE822702.1 | EST_HUMAN | 601441338T1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3916184 3' |
| 4999 | 18128 | | 0.81 | 9.2E-01 | BF129973.1 | EST_HUMAN | 601817814F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:4041363 5' |
| 5835 | 19025 | | 1.59 | 9.2E-01 | 7105410 | NT | Mus musculus solute carrier family 30 (zinc transporter), member 4 (Slc30a4), mRNA |
| 6109 | 19289 | 32624 | 4.97 | 9.2E-01 | BF037586.1 | EST_HUMAN | 601461153F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3894861 5' |
| 6770 | 19925 | 33320 | 0.65 | 9.2E-01 | U64703.1 | NT | N.crassa valyl-RNA synthetase (cyl-20/un-3) gene |
| 9660 | 22900 | 36484 | 0.98 | 9.2E-01 | AL161565.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 65 |
| 9949 | 22968 | 36582 | 1.31 | 9.2E-01 | 6671677 | NT | Mus musculus carbonic anhydrase 4 (Car4), mRNA |
| 10472 | 23507 | 37120 | 3.9 | 9.2E-01 | 11430983 | NT | Homo sapiens lysosomal apyrase-like protein 1 (LALP1), mRNA |
| 10627 | 23651 | 37289 | 1.64 | 9.2E-01 | BF593251.1 | EST_HUMAN | 7656906.x1 NCI_CGAP_K0411 Homo sapiens cDNA clone IMAGE:3578219 3' similar to SW:NU6M_TRYBB |
| 10883 | 23667 | 37596 | 1.76 | 9.2E-01 | BE563811.1 | EST_HUMAN | P04540 NADH-UBIQUINONE OXIDOREDUCTASE CHAIN 5; |
| 12022 | 25008 | 38707 | 1.5 | 9.2E-01 | BF132402.1 | EST_HUMAN | 601334943F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3688714 5' |
| 1654 | 14807 | 27892 | 1.52 | 9.1E-01 | T96675.1 | EST_HUMAN | 601820312F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4052018 5' |
| 2193 | 15323 | | 1.49 | 9.1E-01 | 8923056 | NT | ye52701.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:121369 3' similar to contains Alu repetitive element; |
| 3276 | 16449 | 29488 | 1.28 | 9.1E-01 | T28418.1 | EST_HUMAN | Homo sapiens hypothetical protein FLJ20048 (FLJ20048), mRNA |
| 3275 | 16449 | 29489 | 1.28 | 9.1E-01 | T28418.1 | EST_HUMAN | AB2200GBR infant brain, LLNL array of Dr. M. Soares 1NIB Homo sapiens cDNA clone LLAB200GB 5' |
| 6286 | 19489 | 32624 | 1.54 | 9.1E-01 | L36033.1 | NT | AB2200GBR infant brain, LLNL array of Dr. M. Soares 1NIB Homo sapiens cDNA clone LLAB200GB 5' |
| 6835 | 19794 | 33183 | 3.25 | 9.1E-01 | Q61704 | SWISSPROT | Human pre-B cell stimulating factor homologous (SDF1b) mRNA, complete cds |
| 7750 | 20810 | 34300 | 17.46 | 9.1E-01 | AA806623.1 | EST_HUMAN | INTER-ALPHA-TRYPsin INHIBITOR HEAVY CHAIN H3 PRECURSOR (ITI HEAVY CHAIN H3) |
| 7816 | 20967 | 34473 | 2.81 | 9.1E-01 | U72886.1 | NT | db71g08.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1336882 3' |
| 10379 | 23414 | 37023 | 0.6 | 9.1E-01 | P38432 | SWISSPROT | Rattus norvegicus Rab3 GDP/GTP exchange protein mRNA, complete cds |
| 12595 | 26054 | | 19.67 | 9.1E-01 | AF090113.1 | NT | P80-COILIN |
| 3277 | 18451 | 29472 | 0.8 | 9.0E-01 | 7661625 | NT | Homo sapiens uncoupling protein-3 (UCP3) gene, complete cds |
| 3439 | 16607 | | 0.73 | 9.0E-01 | AL161515.2 | NT | Homo sapiens DKFP964M2423 protein (DKFP964M2423), mRNA |
| 4219 | 17968 | 30357 | 0.68 | 9.0E-01 | 8922310 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 27 |
| 4498 | 17639 | 30620 | 1.43 | 9.0E-01 | AF099810.1 | NT | Homo sapiens hypothetical protein FLJ10251 (FLJ10251), mRNA |
| 5127 | 18252 | 31218 | 13.05 | 9.0E-01 | AF017728.1 | NT | Homo sapiens neurxin II-alpha gene, partial cds |
| 7551 | 20623 | 34100 | 0.82 | 9.0E-01 | L42547.1 | NT | Oryctolagus cuniculus Rad51 (RAD51) mRNA, complete cds |
| 7579 | 20651 | | 1.42 | 9.0E-01 | D38821.1 | NT | Danio rerio LIM class homeodomain protein (lim5) mRNA, complete cds |
| | | | | | | | Xenopus laevis gene for aldolase, complete cds |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 9549 | 22814 | 36183 | 0.68 | 9.0E-01 | AF080781.1 | NT | Danio rerio semaphorin Z1a mRNA, complete cds |
| 10035 | 23073 | 36673 | 0.48 | 9.0E-01 | U39702.1 | NT | Mycoplasma genitalium section 24 of 51 of the complete genome |
| 12113 | 25093 | 38797 | 1.41 | 9.0E-01 | AF148783.2 | NT | Mus musculus neuromedin U precursor (Nmu) gene, partial cds; tPhLP (Tphlp) gene, partial cds; CLOCK (Clock) gene, complete cds; PFT27 (Pft27) gene, complete cds; and H5AR (H5ar) gene, complete cds |
| 5814 | 19004 | 32309 | 2.5 | 8.9E-01 | AF028198.1 | NT | Fugu rubripes neural cell adhesion molecule L1 homolog (L1-CAM) gene, complete cds; putative protein 1 (PUT1) gene, partial cds; mitosis-specific chromosome segregation protein SMC1 homolog (SMC1) gene, complete cds; and calcium channel alpha-1 subunit |
| 6378 | 19547 | | 1.28 | 8.9E-01 | X60986.1 | NT | Rabbit MHC fragment RLA-DF DNA |
| 6890 | 28827 | 33134 | 0.82 | 8.9E-01 | BF217939.1 | EST_HUMAN | 601892708F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4095216 5' |
| 6890 | 28827 | 33135 | 0.82 | 8.9E-01 | BF217939.1 | EST_HUMAN | 601892708F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4095216 5' |
| 8621 | 21701 | 35237 | 0.92 | 8.9E-01 | AF260687.1 | NT | Oithona nana cytochrome-c oxidase subunit 1 (coxI) gene, partial cds, mitochondrial gene for: mitochondrial product |
| 12080 | 25050 | 38766 | 2.72 | 8.9E-01 | AE003944.1 | NT | Xyella fastidiosa, section 80 of 229 of the complete genome |
| 12423 | 25300 | | 4.02 | 8.9E-01 | AE002189.2 | NT | Chlamydia pneumoniae AR39, section 21 of 84 of the complete genome |
| 4684 | 17789 | 30788 | 2.11 | 8.8E-01 | O28360 | SWISSPROT | PUTATIVE F420-DEPENDENT NADP REDUCTASE |
| 5489 | 18938 | 31706 | 0.69 | 8.8E-01 | AF310617.1 | NT | Pseudorabies virus Ea glycoprotein M gene, complete cds |
| 7701 | 20766 | 34250 | 0.69 | 8.8E-01 | M81182.1 | NT | Homo sapiens peroxisomal 70 kD membrane protein mRNA, complete cds |
| 10436 | 23471 | 37077 | 1.07 | 8.8E-01 | 7656878 | NT | Homo sapiens cell death-inducing DFFA-like effector B (CIDEb), mRNA |
| 11337 | 24400 | 38049 | 2.23 | 8.8E-01 | Z28337.1 | NT | M.aeruginosa (HUB 5-2-4) DNA from plasmid PMNA1 |
| 12092 | 26072 | 38779 | 7.56 | 8.8E-01 | AA808055.1 | EST_HUMAN | cc38h11.s1 NCL_CGAP_G081 Homo sapiens cDNA clone IMAGE:1352037 3' similar to contains Alu repetitive element; contains element MER22 repetitive element |
| 12240 | 26159 | | 2.13 | 8.8E-01 | D90911.1 | NT | Synechocystis sp. PCC6803 complete genome, 13/27, 1576593-1718943 |
| 477 | 13672 | 28704 | 2 | 8.7E-01 | AF106953.2 | NT | Homo sapiens SOS1 (SOS1) gene, partial cds |
| 2476 | 15602 | 28727 | 0.98 | 8.7E-01 | 5901893 | NT | Homo sapiens AT-binding transcription factor 1 (ATBF1), mRNA |
| 2938 | 16115 | 29127 | 5.32 | 8.7E-01 | AA595863.1 | EST_HUMAN | nm051f11.s1 NCL_CGAP_P14.1 Homo sapiens cDNA clone IMAGE:1078877 |
| 5120 | 18245 | | 4.12 | 8.7E-01 | AF121970.1 | NT | Pseudomonas aeruginosa topoisomerase (top), putative transcriptional regulatory protein OhbR (ohbR), ortho-halobenzoate 1,2-dioxygenase beta-ISP protein OhbA (ohbA), OhbC (ohbC), ortho-halobenzoate 1,2-dioxygenase alpha-ISP protein OhbB (ohbB), and put |
| 8229 | 21311 | 34831 | 0.66 | 8.7E-01 | AW697335.1 | EST_HUMAN | RC-FNN0057-120500-013-c07 NIND057 Homo sapiens cDNA |
| 9130 | 22019 | 35752 | 0.66 | 8.7E-01 | AJ239456.1 | EST_HUMAN | qt39e06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1846786 3' |
| 9130 | 22209 | 35753 | 0.66 | 8.7E-01 | AJ239456.1 | EST_HUMAN | qt39e06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1846786 3' |
| 9839 | 22978 | 36569 | 2.07 | 8.7E-01 | AE004963.1 | NT | Pseudomonas aeruginosa PA01, section 524 of 529 of the complete genome |
| 10511 | 23546 | 37159 | 1.08 | 8.7E-01 | BF570169.1 | EST_HUMAN | 602185541T1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4309906 3' |

Page 34 of 550.
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 10511 | 23548 | 37167 | 1.08 | 8.7E-01 | BF570169.1 | EST_HUMAN | 602185541T1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4309806 3' |
| 10770 | 24145 | 37782 | 5.87 | 8.7E-01 | BF363970.1 | EST_HUMAN | QVQ-NN1021-100800-337-c03 NN1021 Homo sapiens cDNA |
| 12034 | 25017 | 38720 | 3.32 | 8.7E-01 | BF107694.1 | EST_HUMAN | 601823684R1 NIH_MGC_78 Homo sapiens cDNA clone IMAGE:4043564 3' |
| 12034 | 25017 | 38721 | 3.32 | 8.7E-01 | BF107694.1 | EST_HUMAN | 601823684R1 NIH_MGC_78 Homo sapiens cDNA clone IMAGE:4043664 3' |
| 12652 | 25940 | | 2.8 | 8.7E-01 | AV681898.1 | EST_HUMAN | AV681898 GLC Homo sapiens cDNA clone GLC0Y307 3' |
| 487 | 13681 | | 2.39 | 8.6E-01 | X17012.1 | NT | Rat IGF1 gene for insulin-like growth factor II |
| 881 | 14057 | 27123 | 3.14 | 8.6E-01 | W69089.1 | EST_HUMAN | z444603.r1 Soares_fetal_heart_NbHH10W Homo sapiens cDNA clone IMAGE:343516 5' |
| 2344 | 15475 | 28608 | 1.31 | 8.6E-01 | 4503210 | NT | Homo sapiens cytochrome P450, subfamily XXVIIA (steroid 27-hydroxylase, cerebrotendinous xanthomatosis), polypeptide 1 (CYP27A1b) mRNA |
| 3710 | 16871 | 29875 | 0.85 | 8.6E-01 | AL181565.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 65 |
| 3801 | 17060 | 30059 | 1.31 | 8.6E-01 | U49724.1 | NT | Drosophila melanogaster merlin (Dmerlin) mRNA, complete cds |
| 6019 | 19202 | 32621 | 10.02 | 8.6E-01 | X60647.1 | NT | Chicken lipoprotein lipase gene |
| 6019 | 19202 | 32622 | 10.02 | 8.6E-01 | XG0547.1 | NT | Chicken lipoprotein lipase gene |
| 6508 | 26825 | 33042 | 0.7 | 8.6E-01 | S76772.1 | NT | polyprotein (Coxsackie B4 virus CB4, host-mice, E2, originally derived from Edwards CB4 human strain, Genomic RNA, Complete, 7387 nt) |
| 6848 | 20001 | 33409 | 1.96 | 8.6E-01 | AF143732.1 | NT | Grus canadensis recombination activating protein 1 (RAG-1) gene, partial cds |
| 6848 | 20001 | 33410 | 1.96 | 8.6E-01 | AF143732.1 | NT | Grus canadensis recombination activating protein 1 (RAG-1) gene, partial cds |
| 7686 | 20761 | | 0.64 | 8.6E-01 | AE000591.1 | NT | Helicobacter pylori 26695 section 69 of 134 of the complete genome |
| 8112 | 21194 | | 1.82 | 8.6E-01 | AP001518.1 | NT | Bacillus halodurans genomic DNA, section 12/14 |
| 8232 | 21314 | 34834 | 0.56 | 8.6E-01 | AF077837.1 | NT | Drosophila melanogaster collagen response mediator protein (CRMP) mRNA, complete cds |
| 9887 | 22927 | | 0.54 | 8.6E-01 | AE000979.1 | NT | Archaeoglobus fulgidus section 128 of 172 of the complete genome |
| 12858 | 25883 | | 2.11 | 8.6E-01 | AL112162.1 | NT | Boltyis cinerea strain T4 cDNA library under conditions of nitrogen deprivation |
| 2509 | 15635 | | 1.46 | 8.6E-01 | AJ011624.1 | NT | Arabidopsis thaliana (ecotype Columbia) spl2 gene, exons 1-5 |
| 6866 | 20018 | 33427 | 1.1 | 8.6E-01 | AF165214.1 | NT | Bacteriophage D3, complete genome |
| 7694 | 20769 | 34243 | 2.36 | 8.6E-01 | BE542612.1 | EST_HUMAN | 601087107F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3453505 5' |
| 8180 | 21262 | 34784 | 0.57 | 8.6E-01 | AL161572.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 88 |
| 8613 | 21693 | 35230 | 0.92 | 8.6E-01 | P06601 | SWISSPROT | SEGMENTATION PROTEIN PAIRED |
| 8613 | 21693 | 35231 | 0.92 | 8.6E-01 | P06601 | SWISSPROT | SEGMENTATION PROTEIN PAIRED |
| 8702 | 21782 | 35315 | 0.68 | 8.6E-01 | AJ243213.1 | NT | Homo sapiens partial 5-HT4 receptor gene, exons 2 to 5 |
| 10558 | 23593 | 37198 | 1.49 | 8.6E-01 | AB000799.1 | NT | Cyandium caldarium gene for SigC, complete cds |
| 10558 | 23593 | 37199 | 1.49 | 8.6E-01 | AB000799.1 | NT | Cyandium caldarium gene for SigC, complete cds |
| 12677 | 26056 | | 5.29 | 8.6E-01 | 11418543 | NT | Homo sapiens human immunodeficiency virus type 1 enhancer-binding protein 1 (HIVEP1), mRNA |
| 12685 | 25394 | | 6.39 | 8.6E-01 | 9507008 | NT | Rattus norvegicus protein tyrosine phosphatase, non-receptor type 5 (Ptpn5), mRNA |
| 4873 | 18009 | 30689 | 0.68 | 8.4E-01 | AF083975.2 | NT | Fowl adenovirus 8, complete genome |

Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 5611 | 25808 | 31871 | 2.75 | 8.4E-01 | L78728.1 | NT | Human fibroblast growth factor receptor 3 (FGFR3) gene, intron 7 |
| 5611 | 25808 | 31872 | 2.75 | 8.4E-01 | L78728.1 | NT | Human fibroblast growth factor receptor 3 (FGFR3) gene, intron 7 |
| 7691 | 21041 | 34553 | 0.57 | 8.4E-01 | AF051142.1 | NT | Mamestra brassicae pheromone binding protein 2 precursor (PBP2) mRNA, complete cds |
| 10163 | 23200 | | 3.42 | 8.4E-01 | AJ248287.1 | NT | Pyrococcus abyssi complete genome; segment 5/8 |
| 760 | 13941 | 26386 | 2.17 | 8.3E-01 | M93437.1 | NT | Thermus thermophilus cytochrome c-552 (cycA) and CycB (cycB) genes, complete cds |
| 3184 | 16339 | 29347 | 3.45 | 8.3E-01 | AL161605.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 18 |
| 3912 | 17071 | 30069 | 0.89 | 8.3E-01 | AB010879.1 | NT | Nicotiana tabacum mRNA for chloroplast ribosomal protein L10, complete cds |
| 4120 | 17274 | 30273 | 3.17 | 8.3E-01 | Y19177.1 | NT | Streptomyces antibioticus polyketide biosynthetic gene cluster |
| 6383 | 18586 | 31484 | 2.32 | 8.3E-01 | AL161540.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 40 |
| 9870 | 22910 | | 4 | 8.3E-01 | A1791852.1 | EST_HUMAN | nt01f12.y6 NCL CGAP_Co8 Homo sapiens cDNA clone IMAGE:1078495 5' similar to contains THR.M THR |
| 10316 | 23351 | 36958 | 1.32 | 8.3E-01 | AF098070.1 | NT | Drosophila melanogaster Lis1 homolog mRNA, complete cds |
| 10423 | 23458 | 37063 | 3.9 | 8.3E-01 | AF108133.1 | NT | Mus musculus neuro-d4 gene, exons 3 through 12 and partial cds |
| 10911 | 23994 | 37627 | 2.18 | 8.3E-01 | AE000803.1 | NT | Methanobacterium thermoautotrophicum from bases 1270510 to 1283409 (section 109 of 148) of the complete genome |
| 10930 | 24012 | | 1.65 | 8.3E-01 | Z12472 | NT | Phytophthora infestans mitochondrial, complete genome |
| 11684 | 24637 | 38317 | 9.95 | 8.3E-01 | AF020503.1 | NT | Homo sapiens FRA3B common fragile region, diadenosine triphosphate hydrolase (FHT) gene, exon 5 |
| 2111 | 16249 | 28369 | 2.72 | 8.2E-01 | AB000489.1 | NT | Rattus norvegicus mRNA for RPHO-1, complete cds |
| 2168 | 16292 | | 1.32 | 8.2E-01 | AF145589.1 | NT | Mus musculus trophoblast (Tm) gene, complete cds |
| 2744 | 15861 | | 0.95 | 8.2E-01 | AW376990.1 | EST_HUMAN | IL3-CT0219-161189-031-008 CT0219 Homo sapiens cDNA |
| 4009 | 17168 | 30174 | 0.68 | 8.2E-01 | AB014574.1 | NT | Homo sapiens mRNA for KIAA0874 protein, partial cds |
| 4247 | 17393 | 30381 | 0.7 | 8.2E-01 | Z72584.1 | NT | S. cerevisiae chromosome VII reading frame ORF YGL062w |
| 4247 | 17393 | 30382 | 0.7 | 8.2E-01 | Z72584.1 | NT | S. cerevisiae chromosome VII reading frame ORF YGL062w |
| 5217 | 18338 | 31311 | 1.19 | 8.2E-01 | AB000489.1 | NT | Rattus norvegicus mRNA for RPHO-1, complete cds |
| 6781 | 16838 | 33332 | 0.59 | 8.2E-01 | X95283.1 | NT | G. gallus mRNA for C-Serrate-1 protein |
| 6781 | 16838 | 33333 | 0.59 | 8.2E-01 | X95283.1 | NT | G. gallus mRNA for C-Serrate-1 protein |
| 6913 | 20228 | 33681 | 0.76 | 8.2E-01 | AJ010142.1 | NT | Amarilla muscaria mRNA for SC1125 protein |
| 7037 | 20173 | 33685 | 3.19 | 8.2E-01 | AW376943.1 | EST_HUMAN | GM4-HT0243-081199-037-e01 HT0243 Homo sapiens cDNA |
| 7419 | 25844 | 33969 | 4.48 | 8.2E-01 | Z12120.1 | NT | S. cerevisiae MET, LEU4, and POL1 genes encoding MET4 protein, alpha-isopropylmalate (alpha-IPM) synthetase (partial), and DNA polymerase alpha (partial) |
| 8639 | 21719 | 35258 | 0.55 | 8.2E-01 | BE263145.1 | EST_HUMAN | 601144885F2 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3160412 5' |
| 10231 | 23265 | 36863 | 0.81 | 8.2E-01 | AB014530.1 | NT | Homo sapiens mRNA for KIAA0830 protein, partial cds |
| 10264 | 23269 | 36897 | 1.51 | 8.2E-01 | AF052659.1 | NT | Homo sapiens thioredoxin-related protein mRNA, complete cds |

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 10428 | 23463 | 37070 | 0.54 | 8.2E-01 | AF223888.1 | NT | Oncorhynchus tshawytscha isolate T-20 somatolactin precursor gene, exon 1 |
| 10428 | 23463 | 37071 | 0.54 | 8.2E-01 | AF223888.1 | NT | Oncorhynchus tshawytscha isolate T-20 somatolactin precursor gene, exon 1 |
| 10596 | 23631 | 37239 | 3.78 | 8.2E-01 | Q9J170 | SWISSPROT | MCKUSICK-KAUFMAN/BARDET-BIEDL SYNDROMES PUTATIVE CHAPERONIN |
| 10596 | 23631 | 37240 | 3.78 | 8.2E-01 | Q9J170 | SWISSPROT | MCKUSICK-KAUFMAN/BARDET-BIEDL SYNDROMES PUTATIVE CHAPERONIN |
| 11942 | 24928 | 38631 | 4.72 | 8.2E-01 | L10127.1 | NT | Meluscum contagiosum virus type 1 ORF1 and ORF2 DNA |
| 12030 | 25013 | 38716 | 6.12 | 8.2E-01 | P10383 | SWISSPROT | OVARIAN TUMOR LOCUS PROTEIN |
| 12035 | 25018 | 38722 | 3.97 | 8.2E-01 | H87398.1 | EST_HUMAN | yw14302.r1 Soares_placenta_809weeks_2NBHP8b09W Homo sapiens cDNA clone IMAGE:252195.6 similar to gbtM36072 60S RIBOSOMAL PROTEIN L7A (HUMAN); |
| 12807 | 25408 | 32048 | 3.01 | 8.2E-01 | AJ001281.1 | NT | Mus musculus mRNA for NIPSNAP2 protein |
| 2817 | 15931 | | 1.38 | 8.1E-01 | AF191839.1 | NT | Mus musculus TANK binding kinase TBK1 (Tbk1) mRNA, complete cds |
| 3547 | 16712 | 29723 | 2.77 | 8.1E-01 | AF050083.1 | NT | Homo sapiens MHC class 1 region |
| 3547 | 16712 | 29724 | 2.77 | 8.1E-01 | AF050083.1 | NT | Homo sapiens MHC class 1 region |
| 4730 | 17886 | 30847 | 0.63 | 8.1E-01 | 4506290 | NT | Homo sapiens protein tyrosine phosphatase, non-receptor type 2 (PTPN2) mRNA |
| 5826 | 19015 | 32321 | 0.63 | 8.1E-01 | Q01727 | SWISSPROT | MELANOCYTE STIMULATING HORMONE RECEPTOR (MSH-R) (MELANOTROPIN RECEPTOR) |
| 6445 | 19612 | 32978 | 0.89 | 8.1E-01 | U16780.1 | NT | Mus musculus putative collagen alpha-2 (X) chain (COL11A2) gene, partial cds |
| 6769 | 19915 | 33308 | 2.17 | 8.1E-01 | Q13491 | SWISSPROT | NEURONAL MEMBRANE GLYCOPROTEIN M8-B |
| 6769 | 19915 | 33310 | 2.17 | 8.1E-01 | Q13491 | SWISSPROT | NEURONAL MEMBRANE GLYCOPROTEIN M8-B |
| 7681 | 20746 | 34227 | 0.7 | 8.1E-01 | Q47477 | SWISSPROT | CYTOCHROME B |
| 8095 | 21177 | 34693 | 1.1 | 8.1E-01 | AF022713.2 | NT | Drosophila melanogaster putative inorganic phosphate cotransporter (Pico) gene, partial cds; putative sodium channel (Nach) and putative amylase-related protein (Amyrel) genes, complete cds; and putative serine-enriched protein (gprs) gene, partial cd> |
| 8095 | 21177 | 34694 | 1.1 | 8.1E-01 | AF022713.2 | NT | Drosophila melanogaster putative inorganic phosphate cotransporter (Pico) gene, partial cds; putative sodium channel (Nach) and putative amylase-related protein (Amyrel) genes, complete cds; and putative serine-enriched protein (gprs) gene, partial cd> |
| 8803 | 21897 | 35428 | 0.91 | 8.1E-01 | AP001617.1 | NT | Bacillus halodurans genomic DNA, section 11/14 |
| 8803 | 21897 | 35429 | 0.91 | 8.1E-01 | AP001617.1 | NT | Bacillus halodurans genomic DNA, section 11/14 |
| | | | | | | | xx01103.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2692469.3 similar to SW-1:LYAR_MOUSE Q08288 CELL GROWTH REGULATING NUCLEOLAR PROTEIN. ;contains MER22.b1 PTR5 repetitive element ; |
| 8869 | 22048 | 36591 | 1.14 | 8.1E-01 | AW242847.1 | EST_HUMAN | PROBABLE E4 PROTEIN |
| 10330 | 23365 | 36974 | 0.58 | 8.1E-01 | P08425 | SWISSPROT | KL9872F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone KK9872.5 similar to EST(CLONE C-0PE11) |
| 10923 | 23657 | 37287 | 0.52 | 8.1E-01 | NB4541.1 | EST_HUMAN | Trepurama pallidum section 42 of 87 of the complete genome |
| 10769 | 23802 | | 0.54 | 8.1E-01 | AE001226.1 | NT | |

Page 37 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 11772 | 24784 | 38459 | 2.82 | 8.1E-01 | BE938558.1 | EST_HUMAN | RCO-TN0080-220800-025-d10 TN0080 Homo sapiens cDNA |
| 11772 | 24784 | 38480 | 2.82 | 8.1E-01 | BE938558.1 | EST_HUMAN | RCO-TN0080-220800-025-d10 TN0080 Homo sapiens cDNA |
| 12303 | 28221 | 32102 | 2.22 | 8.1E-01 | AE001711.1 | NT | Thermotoga maritima section 23 of 138 of the complete genome |
| 181 | 13404 | | 2.82 | 8.0E-01 | AJ271510.1 | NT | Staphylococcus aureus partial pla gene for phosphate acetyltransferase allele 15 |
| 289 | 13516 | 26549 | 10.2 | 8.0E-01 | AJ132772.1 | NT | Bos taurus tub and rif genes |
| 2093 | 16233 | | 1.95 | 8.0E-01 | BF930982.1 | EST_HUMAN | 602072473F1 NCI CGAP_Bim67 Homo sapiens cDNA clone IMAGE:4215091 5' |
| 3146 | 16322 | 29334 | 1.32 | 8.0E-01 | AF127897.1 | NT | Samiti bolivensis olfactory receptor (SBO27) gene, partial cds |
| 3387 | 16557 | 29572 | 1.28 | 8.0E-01 | AB008183.1 | NT | Mus musculus gene for ovaldual glycoprotein, complete cds |
| 4655 | 17791 | 30775 | 6.77 | 8.0E-01 | X83739.2 | NT | G.gallus mRNA for nicotinic acetylcholine receptor (nAChR) beta 3 subunit |
| 5096 | 18224 | 31198 | 1 | 8.0E-01 | 7657382 | NT | Mus musculus myosin IXb (Myo9b), mRNA |
| 8179 | 21261 | | 2.86 | 8.0E-01 | AW601489.1 | EST_HUMAN | RCO-NN1012-270300-021-h08 NN1012 Homo sapiens cDNA |
| 8722 | 21802 | 35338 | 1.21 | 8.0E-01 | Y11095.1 | NT | Rice stripe virus RNA 3' |
| 10635 | 23669 | | 0.48 | 8.0E-01 | BE833329.1 | EST_HUMAN | QV3-OT0065-280600-250-d09 OT0065 Homo sapiens cDNA |
| 10827 | 23680 | 37483 | 0.48 | 8.0E-01 | AB045687.1 | NT | Gallus gallus PPAR gamma mRNA for peroxisome proliferator-activated receptor, complete cds |
| 11198 | 24267 | 37902 | 1.43 | 8.0E-01 | Q82793 | SWISSPROT | CREB-BINDING PROTEIN |
| 468 | 13681 | 26697 | 0.75 | 7.9E-01 | D11476.1 | NT | Lymantria dispar nuclear polyhedrosis virus gene for DNA polymerase, complete cds |
| 733 | 13915 | | 0.92 | 7.9E-01 | AE002130.1 | NT | Ureaplasma urealyticum section 31 of 59 of the complete genome |
| 1636 | 14787 | | 28.32 | 7.9E-01 | AB040885.1 | NT | Homo sapiens mRNA for KIAA1452 protein, partial cds |
| 1887 | 14839 | | 1.06 | 7.9E-01 | U32739.1 | NT | Haemophilus influenzae Rd section 64 of 163 of the complete genome |
| 2337 | 15469 | 28603 | 9.03 | 7.9E-01 | AB004816.1 | NT | Oryctolagus cuniculus mRNA for miteugmin26, complete cds |
| 2338 | 15469 | 28604 | 4.11 | 7.9E-01 | AF130459.1 | NT | Danio rerio Trp4-associated protein Tap1A (tap1A) mRNA, complete cds |
| 3806 | 18769 | 29784 | 3.57 | 7.9E-01 | AF228664.1 | NT | Gallus gallus SOX8 transcription factor (SOX8) mRNA, complete cds |
| 4416 | 17557 | | 0.87 | 7.8E-01 | BE263812.1 | EST_HUMAN | 601192039F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3635785 5' |
| 4734 | 17869 | 30852 | 0.84 | 7.9E-01 | 0753745 | NT | Mus musculus embigin (Emb), mRNA |
| 4734 | 17869 | 30853 | 0.84 | 7.9E-01 | 0753745 | NT | Mus musculus embigin (Emb), mRNA |
| 5210 | 18331 | | 0.68 | 7.9E-01 | 0753763 | NT | Mus musculus enabled homolog (Drosophila) (Enah), mRNA |
| 5235 | 18357 | 31325 | 0.93 | 7.9E-01 | Z47210.1 | NT | S.pneumoniae dexB, cap3A, cap3B and cap3C genes and orfs |
| 5235 | 18357 | 31328 | 0.93 | 7.9E-01 | Z47210.1 | NT | S.pneumoniae dexB, cap3A, cap3B and cap3C genes and orfs |
| 5283 | 18402 | | 0.66 | 7.9E-01 | AF139718.1 | NT | Chrysomya bezziana peritrophin-48 precursor, gene, complete cds |
| 6475 | 19942 | 33003 | 0.68 | 7.9E-01 | D38145.1 | NT | Human mRNA for prostacyclin synthase, complete cds |
| 8300 | 21382 | 34903 | 2.66 | 7.9E-01 | X90998.1 | NT | P.sativum GR gene |
| 9747 | 22811 | 36390 | 3.24 | 7.9E-01 | U01912.1 | NT | Giardia lamblia variant-specific surface protein G3M-B (vspG3M-B) mRNA, partial cds |
| 10255 | 23290 | 36887 | 5.43 | 7.9E-01 | P19719 | SWISSPROT | SMALL HYDROPHOBIC PROTEIN |
| 10296 | 23331 | 36934 | 1.17 | 7.9E-01 | AV700860.1 | EST_HUMAN | AV700860 GKC Homo sapiens cDNA clone GKCDRE12 3' |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 10729 | 23782 | 37369 | 0.78 | 7.9E-01 | AB000631.1 | NT | Streptococcus mutans DNA for sigma 42 protein, dTDP-4-keto-L-rhamnose reductase, complete cds |
| 10845 | 23878 | 37498 | 0.81 | 7.9E-01 | P16305 | SWISSPROT | DYNEIN HEAVY CHAIN (DYHC) |
| 11258 | 24325 | | 1.75 | 7.9E-01 | 7892471 | NT | Homo sapiens KIAA1072 protein (KIAA1072), mRNA |
| 11487 | 24546 | 38218 | 1.84 | 7.9E-01 | P19022 | SWISSPROT | NEURAL-CADHERIN PRECURSOR (N-CADHERIN) |
| 899 | 14074 | | 1.48 | 7.8E-01 | Z43785.1 | EST_HUMAN | HSC1KH041 normalized infant brain cDNA Homo sapiens cDNA clone c-1kh04 |
| 2349 | 15480 | 28612 | 6.99 | 7.8E-01 | AW95867.1 | EST_HUMAN | EST1371637 MAGE resequences, MAGF Homo sapiens cDNA |
| 4823 | 17958 | 30942 | 0.73 | 7.8E-01 | U87305.1 | NT | Rattus norvegicus transmembrane receptor Unc5H1 mRNA, complete cds |
| 5149 | 18271 | | 0.89 | 7.8E-01 | AW75353.1 | EST_HUMAN | RC3-C10254-130100-023-c02 C10254 Homo sapiens cDNA |
| 6194 | 19370 | 32721 | 2.28 | 7.8E-01 | AF115856.1 | NT | Sphenodon punctatus alpha enolase mRNA, partial cds |
| 6348 | 19518 | 32876 | 2.28 | 7.8E-01 | P05231 | SWISSPROT | INTERLEUKIN-6 PRECURSOR (IL-6) (B-CELL STIMULATORY FACTOR 2) (BSF-2) (INTERFERON BETA-2) (HYBRIDOMA GROWTH FACTOR) |
| 8601 | 19761 | 33136 | 0.84 | 7.8E-01 | AL445068.1 | NT | Thermoplasma acidophilum complete genome, segment 4/5 |
| 8088 | 21708 | 35289 | 1.13 | 7.8E-01 | BF108927.1 | EST_HUMAN | 716406.x1 Soares NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3525176 3' |
| 9434 | 22508 | 36074 | 1.53 | 7.8E-01 | Y10139.1 | NT | D.dicoidaeum recGAP gene |
| 9633 | 22698 | 36170 | 0.56 | 7.8E-01 | Q25452 | SWISSPROT | Homo sapiens nucleoporin 214kD (CAIN) (NUP214), mRNA |
| 10329 | 23364 | | 1.28 | 7.8E-01 | L28280.1 | NT | MUSCLE CALCIUM CHANNEL ALPHA-1 SUBUNIT (MDL-ALPHA1) |
| 12671 | 26033 | | 1.92 | 7.8E-01 | | NT | Arabidopsis thaliana 1-amino-1-cyclopropanecarboxylate synthase (ACS6) gene, complete cds |
| 146 | 13371 | 26403 | 5.78 | 7.7E-01 | AF184345.1 | NT | Lycopodium obscurum ADP-glucose pyrophosphorylase large subunit (AGP-L1) mRNA, complete cds |
| 744 | 13925 | | 1.72 | 7.7E-01 | AF050157.1 | NT | Mus musculus major histocompatibility locus class II region: major histocompatibility protein class II alpha chain (IAalpha) and major histocompatibility protein class II beta chain (Ib beta) genes, complete cds, butyrophilin-like (NC9), butyrophilin-II> |
| 2776 | 15892 | 28003 | 1.34 | 7.7E-01 | O33915 | SWISSPROT | CITRATE SYNTHASE |
| 3438 | 16606 | | 0.85 | 7.7E-01 | 8393408 | NT | Homo sapiens UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylglucosaminyltransferase 7 (GALNAc-T7) (GALNAc-T7), mRNA |
| 3889 | 16851 | 29859 | 3.88 | 7.7E-01 | AF118085.1 | NT | Homo sapiens PRO1975 mRNA, complete cds |
| 4516 | 17555 | 30643 | 3.38 | 7.7E-01 | AF189488.1 | NT | Colurnix colurnix japonica sub-species japonica beta-actin mRNA, partial cds |
| 4516 | 17655 | 30644 | 3.38 | 7.7E-01 | AF189488.1 | NT | Colurnix colurnix japonica sub-species japonica beta-actin mRNA, partial cds |
| 5678 | 18872 | 32169 | 1.39 | 7.7E-01 | P16563 | SWISSPROT | RAFFINOSE INVERTASE (INVERTASE) |
| 5878 | 18872 | 32160 | 1.39 | 7.7E-01 | P16553 | SWISSPROT | RAFFINOSE INVERTASE (INVERTASE) |
| 6076 | 19258 | 32587 | 1.41 | 7.7E-01 | R08600.1 | EST_HUMAN | Y24b02.s1 Soares fetal liver spleen 'INFLS Homo sapiens cDNA clone IMAGE:127765 3' |
| 10049 | 23087 | 36689 | 0.68 | 7.7E-01 | AB021134.1 | NT | Daphnia magna hemoglobin gene cluster (dhb3, dhb1 and dhb2 genes), complete cds |
| 12462 | 25317 | | 7.14 | 7.7E-01 | 11497621 | NT | Archaeoglobus fulgidus, complete genome |

Page 39 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6224 | 19399 | 32748 | 5.26 | 7.6E-01 | AF059510.1 | NT | Arabidopsis thaliana 3-methylcrotonyl-CoA carboxylase non-biotinylated subunit (MCCB) mRNA, complete cds |
| 6224 | 19399 | 32749 | 5.26 | 7.6E-01 | AF059510.1 | NT | Arabidopsis thaliana 3-methylcrotonyl-CoA carboxylase non-biotinylated subunit (MCCB) mRNA, complete cds |
| 6847 | 19808 | 33193 | 0.66 | 7.6E-01 | P37838 | SWISSPROT | MATING-TYPE PROTEIN A-ALPHA Z4 |
| 6900 | 18509 | 31501 | 0.74 | 7.6E-01 | AI293399.1 | EST_HUMAN | eq14b12.x1 Stanley Frontal NS pool 2 Homo sapiens cDNA clone IMAGE:2030879 |
| 6900 | 18509 | 31526 | 0.74 | 7.6E-01 | AI293399.1 | EST_HUMAN | ac14b12.x1 Stanley Frontal NS pool 2 Homo sapiens cDNA clone IMAGE:2030879 |
| 7196 | 20061 | 33472 | 0.84 | 7.6E-01 | U72487.1 | NT | Rattus norvegicus calcium-independent alpha-latrotoxin receptor mRNA, complete cds |
| 8255 | 21337 | 34855 | 1.54 | 7.6E-01 | AF149793.2 | NT | Mus musculus neuromedin U precursor (Nmu) gene, partial cds; iPhLP (Tphlp) gene, partial cds; CLOCK (Clock) gene, complete cds; PFT27 (Pft27) gene, complete cds; and H5AR (H5ar) gene, complete cds |
| 8318 | 21400 | 34924 | 2.38 | 7.6E-01 | 8857752 | NT | Mus musculus advillin (Advil-pending), mRNA |
| 8318 | 21400 | 34925 | 2.38 | 7.6E-01 | 8857762 | NT | Mus musculus advillin (Advil-pending), mRNA |
| 8520 | 21601 | 35137 | 0.83 | 7.6E-01 | Q01098 | SWISSPROT | GLUTAMATE [NMDA] RECEPTOR SUBUNIT EPSILON 3 PRECURSOR (N-METHYL D-ASPARTATE RECEPTOR SUBTYPE 2C) (NR2C) (NMDAR2C) |
| 8520 | 21601 | 35138 | 0.83 | 7.6E-01 | Q01098 | SWISSPROT | GLUTAMATE [NMDA] RECEPTOR SUBUNIT EPSILON 3 PRECURSOR (N-METHYL D-ASPARTATE RECEPTOR SUBTYPE 2C) (NR2C) (NMDAR2C) |
| 9187 | 22245 | 36789 | 1.33 | 7.6E-01 | P30372 | SWISSPROT | MUSCARINIC ACETYLCHOLINE RECEPTOR M2 |
| 9479 | 22536 | 36100 | 5.24 | 7.6E-01 | P30372 | SWISSPROT | MUSCARINIC ACETYLCHOLINE RECEPTOR M2 |
| 9479 | 22536 | 36101 | 5.24 | 7.6E-01 | P30372 | SWISSPROT | MUSCARINIC ACETYLCHOLINE RECEPTOR M2 |
| 11639 | 24719 | 38411 | 2.29 | 7.6E-01 | X86347.1 | NT | H. aspersa mRNA for neurofilament NF70 |
| 11639 | 24719 | 38412 | 2.29 | 7.6E-01 | X86347.1 | NT | H. aspersa mRNA for neurofilament NF70 |
| 12010 | 24695 | | 2.78 | 7.6E-01 | AL161592.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 88 |
| 12203 | 25157 | | 8.21 | 7.6E-01 | AB020702.1 | NT | Homo sapiens mRNA for KIAA0895 protein, partial cds |
| 626 | 13719 | | 1.31 | 7.5E-01 | AL163301.2 | NT | Homo sapiens chromosome 21 segment HS21C101 |
| 597 | 13787 | 26807 | 1.09 | 7.5E-01 | AF020503.1 | NT | Homo sapiens FRA3B common fragile region, diadenosine triphosphate hydrolase (FHT) gene, exon 5 |
| 7690 | 20765 | 34240 | 0.8 | 7.5E-01 | AF052730.1 | NT | Drosophila melanogaster tyrosine kinase receptor protein (eph) mRNA, complete cds |
| 12621 | 25364 | | 5.2 | 7.5E-01 | AF163151.2 | NT | Homo sapiens dentin sialoprotein precursor (DSP) gene, complete cds |
| 1154 | 14316 | 27372 | 1.61 | 7.4E-01 | AI598146.1 | EST_HUMAN | ht14b08.x1 NCJ_CGAP_Brm25 Homo sapiens cDNA clone IMAGE:2167577 3' similar to contains Alu repetitive element/contains element MIR repetitive element; |
| 2419 | 15548 | 26876 | 0.97 | 7.4E-01 | AB011108.1 | NT | Homo sapiens mRNA for KIAA0534 protein, partial cds |
| 3820 | 16980 | 26983 | 0.97 | 7.4E-01 | AF112538.1 | NT | Malva pusilla actin (Act1) mRNA, complete cds |

Page 40 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 4010 | 17167 | 30175 | 0.71 | 7.4E-01 | AF133310.1 | NT | Vibrio cholerae phage CTXphi Calcutta-rsR-e (rsR-e) and Calcutta-rsR-b (rsR-b) genes, complete cds |
| 4429 | 17569 | 30531 | 8.12 | 7.4E-01 | AL163249.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 8027 | 21110 | 34828 | 1.25 | 7.4E-01 | AL161561.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 51 |
| 8027 | 21110 | 34628 | 1.25 | 7.4E-01 | AL161561.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 51 |
| 8834 | 21913 | 35451 | 1.01 | 7.4E-01 | BF346266.1 | EST_HUMAN | 602018495F1 NCL CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4154340 5' |
| 8910 | 21989 | | 1.45 | 7.4E-01 | U87060.1 | NT | Rattus norvegicus leukocyte common antigen receptor (LAR) gene, transcribed alternative untranslated exon |
| 9298 | 22374 | 35925 | 6.86 | 7.4E-01 | BE747503.1 | EST_HUMAN | 601573026F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3834174 5' |
| 9357 | 22432 | 36990 | 1.24 | 7.4E-01 | AA187988.1 | EST_HUMAN | zp67h01.s1 Stratiagene endothelial cell 937223 Homo sapiens cDNA clone IMAGE:825297 3' similar to SW:TCPO_MOUSE P42932 T-COMPLEX PROTEIN 1, THETA SUBUNIT ; |
| 10813 | 23647 | 37256 | 0.7 | 7.4E-01 | 11424933 | NT | Homo sapiens NY-REN-45 antigen (LOC551133), mRNA |
| 12170 | 26133 | | 3.69 | 7.4E-01 | 8753217 | NT | Mus musculus complement component 1 inhibitor (C1inh), mRNA |
| 12287 | 28213 | | 1.7 | 7.4E-01 | AI472841.1 | EST_HUMAN | fat3h01.x1 NCL CGAP_Lym6 Homo sapiens cDNA clone IMAGE:2043985 3' |
| 4083 | 17238 | | 0.73 | 7.3E-01 | AP000062.1 | NT | Aeropyrum pernix genome DNA, section 6/7 |
| 4738 | 17873 | 30856 | 0.8 | 7.3E-01 | AE001168.1 | NT | Borrelia burgdorferi (section 52 of 70) of the complete genome |
| 4822 | 17955 | 30941 | 2.38 | 7.3E-01 | AF225421.1 | NT | Homo sapiens HT017 mRNA, complete cds |
| 6741 | 18997 | 33287 | 6.5 | 7.3E-01 | L35772.1 | NT | Mus musculus antigen (CD72) gene |
| 6741 | 18997 | 33288 | 6.5 | 7.3E-01 | L35772.1 | NT | Mus musculus antigen (CD72) gene |
| 7243 | 25941 | 33771 | 0.93 | 7.3E-01 | AJ011418.1 | NT | Lycopodium obscurum mRNA for ubiquitin activating enzyme |
| 7617 | 20987 | 34163 | 0.69 | 7.3E-01 | Z14133.1 | NT | Dimerogaster Cdc mRNA for clathrin heavy chain |
| 7718 | 20782 | 34288 | 7.25 | 7.3E-01 | M26511.1 | NT | V.alginolyticus sucrose (scrB) gene, complete cds |
| 7718 | 20782 | 34269 | 7.25 | 7.3E-01 | M26511.1 | NT | V.alginolyticus sucrose (scrB) gene, complete cds |
| 11714 | 24754 | 38448 | 3.29 | 7.3E-01 | AA678019.1 | EST_HUMAN | z125508.s1 Soares_fetal_liver_apben_1INFLS_S1 Homo sapiens cDNA clone IMAGE:431789 3' |
| 11714 | 24754 | 38449 | 3.29 | 7.3E-01 | AA678019.1 | EST_HUMAN | z125508.s1 Soares_fetal_liver_apben_1INFLS_S1 Homo sapiens cDNA clone IMAGE:431789 3' |
| 854 | 14031 | | 1.86 | 7.2E-01 | L29281.1 | NT | Rattus norvegicus initiation factor-2 kinase (eIF-2a) mRNA, complete cds |
| 2012 | 15152 | 28257 | 3.43 | 7.2E-01 | X79140.1 | NT | N.tabacum NelF-4A13 mRNA |
| 2532 | 15657 | 28781 | 1.98 | 7.2E-01 | AB009805.1 | NT | Gallus gallus gene for melanocortin 2-receptor, complete cds |
| 3135 | 16311 | 28923 | 1.27 | 7.2E-01 | AF198100.1 | NT | Fowlpox virus, complete genome |
| 3541 | 16705 | 29717 | 2.36 | 7.2E-01 | AF065006.1 | NT | Giardia intestinalis variant-specific surface protein (vssp417-6) gene, vsp417-6(A-1 allele), complete cds |
| 3702 | 16883 | 29888 | 1.35 | 7.2E-01 | AB002307.1 | NT | Human mRNA for KIAA0309 gene, partial cds |
| 3975 | 17132 | 30138 | 1.57 | 7.2E-01 | BF338350.1 | EST_HUMAN | 602035589F1 NCL CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4183222 5' |
| 4173 | 17323 | | 0.73 | 7.2E-01 | AF108093.1 | NT | Homo sapiens IA-2 gene, intron 18 |

Page 41 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 4892 | 18022 | 31007 | 2.68 | 7.2E-01 | D90314.1 | NT | L-mesenteroides gene for sucrose phosphorylase (EC 2.4.1.7) |
| 6225 | 18347 | 31317 | 1.07 | 7.2E-01 | AF198779.1 | NT | Homo sapiens transcription factor 1G-HM enhancer 3, JM11 protein, JM4 protein, JM5 protein, T54 protein, JM10 protein, A4 differentiation-dependent protein, triple LIM domain protein 6, and synaptophysin genes, complete cds; and L-type calcium channel α |
| 5225 | 18347 | 31318 | 1.07 | 7.2E-01 | AF198779.1 | NT | Homo sapiens transcription factor 1G-HM enhancer 3, JM11 protein, JM4 protein, JM5 protein, T54 protein, JM10 protein, A4 differentiation-dependent protein, triple LIM domain protein 6, and synaptophysin genes, complete cds; and L-type calcium channel α |
| 6308 | 18425 | 31395 | 0.85 | 7.2E-01 | AL181593.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 89 |
| 7362 | 20441 | 33903 | 0.59 | 7.2E-01 | U69633.1 | NT | Solanum tuberosum cold-stress inducible protein (C17) gene, complete cds |
| 8648 | 21728 | 35285 | 1.31 | 7.2E-01 | AF238061.1 | NT | Oryctolagus cuniculus RING-finger binding protein mRNA, partial cds |
| 9163 | 22241 | 37192 | 0.64 | 7.2E-01 | AV743773.1 | EST_HUMAN | AV743773 CB Homo sapiens cDNA clone CBMAFD06 5' |
| 10548 | 23593 | 37192 | 2.25 | 7.2E-01 | BF870061.1 | EST_HUMAN | 602118381F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4275381 5' |
| 10877 | 24056 | 37690 | 3.26 | 7.2E-01 | U82023.1 | NT | Rattus norvegicus cytochrome mRNA, complete cds |
| 12530 | 18491 | 31530 | 1.51 | 7.2E-01 | U02568.1 | NT | Dictyocaulus viviparus nematode polyprotein antigen precursor (DvA) mRNA, complete cds |
| 12737 | 25488 | | 4.37 | 7.2E-01 | AP000063.1 | NT | Aeropyrum pernix genomic DNA, section 6/7 |
| 12784 | 26075 | | 1.48 | 7.2E-01 | Y10188.1 | NT | B. thuringiensis PK1 & cap genes, putative |
| 710 | 13692 | 26928 | 11.37 | 7.1E-01 | D21070.1 | NT | Rana catesbeiana mRNA for bullfrog skeletal muscle calcium release channel (ryanodine receptor) alpha isoform(RYR1), complete cds |
| 3130 | 16308 | 28320 | 18.1 | 7.1E-01 | AJ270777.1 | NT | Homo sapiens partial TCF-4 gene for T-cell transcription factor-4, exons 15-18 |
| 4324 | 17467 | 30453 | 3.07 | 7.1E-01 | 7305360 | NT | Mus musculus otogelin (Otog), mRNA |
| 4324 | 17467 | 30454 | 3.07 | 7.1E-01 | 7305360 | NT | Mus musculus otogelin (Otog), mRNA |
| 6069 | 19251 | 32579 | 1.73 | 7.1E-01 | BF681034.1 | EST_HUMAN | 602165438F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4296344 5' |
| 6069 | 19251 | 32580 | 1.73 | 7.1E-01 | BF681034.1 | EST_HUMAN | 602165438F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4296344 5' |
| 7088 | 20182 | 33608 | 6.48 | 7.1E-01 | U36232.1 | NT | Drosophila melanogaster 6-pyruvyltetrahydropterin synthase (pr) gene, complete cds |
| 8934 | 22013 | 35552 | 1.12 | 7.1E-01 | BE074185.1 | EST_HUMAN | RC1-BT0567-301299-011-409 BT0567 Homo sapiens cDNA |
| 8934 | 22013 | 35553 | 1.12 | 7.1E-01 | BE074185.1 | EST_HUMAN | RC1-BT0567-301299-011-409 BT0567 Homo sapiens cDNA |
| 10059 | 23097 | 36700 | 1.6 | 7.1E-01 | BE904405.1 | EST_HUMAN | 601496330F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3898495 5' |
| 10621 | 23655 | 37265 | 1.1 | 7.1E-01 | M12961.1 | NT | Human T-cell receptor gamma chain J2 gene |
| 12505 | 25855 | 27478 | 2.64 | 7.1E-01 | AA421492.1 | EST_HUMAN | z00611.s1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:731109 3' |
| 1257 | 14415 | 27478 | 0.95 | 7.0E-01 | AB014514.1 | NT | Homo sapiens mRNA for KIAA0614 protein, partial cds |
| 1267 | 14415 | 27480 | 0.95 | 7.0E-01 | AB014514.1 | NT | Homo sapiens mRNA for KIAA0614 protein, partial cds |
| 2521 | 15847 | 28770 | 1.28 | 7.0E-01 | NG2412.1 | EST_HUMAN | y273e07.s1 Soares multiple sclerosis_2Nbl-MS Homo sapiens cDNA clone IMAGE:288708 3' similar to contains Alu repetitive element; |

Page 42 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 2521 | 16647 | 28771 | 1.26 | 7.0E-01 | N62412.1 | EST_HUMAN | yz73d07.s1 Soares_multiple_sclerosis_2NbhMSP Homo sapiens cDNA clone IMAGE:288708 3' similar to contains Alu repetitive element |
| 5169 | 18291 | | 2.32 | 7.0E-01 | AL163301.2 | NT | Homo sapiens chromosome 21 segment HS21C101 |
| 6073 | 19255 | | 0.89 | 7.0E-01 | AB021316.1 | NT | Arabidopsis thaliana mRNA for chlorophyll b synthase, complete cds |
| 8573 | 21654 | | 6.52 | 7.0E-01 | AE000253.1 | NT | Escherichia coli K-12 MG1655 section 143 of 400 of the complete genome |
| 9517 | 22582 | 36160 | 0.68 | 7.0E-01 | U63868.1 | NT | Clostridium acetobutylicum mannitol-specific phosphotransferase system (PTS) system, mliA, mliR, mliF, and mliD genes, complete cds |
| 9517 | 22582 | 36161 | 0.58 | 7.0E-01 | U53868.1 | NT | Clostridium acetobutylicum mannitol-specific phosphotransferase system (PTS) system, mliA, mliR, mliF, and mliD genes, complete cds |
| 11382 | 24443 | 38102 | 1.47 | 7.0E-01 | AV763842.1 | EST_HUMAN | AV763842 MDS Homo sapiens cDNA clone MDSCH04 5' |
| 11382 | 24443 | 38103 | 1.47 | 7.0E-01 | AV763842.1 | EST_HUMAN | AV763842 MDS Homo sapiens cDNA clone MDSCH04 5' |
| 13133 | 26967 | 31772 | 1.47 | 7.0E-01 | 9630464 | NT | Bacteriophage NT5 virion, complete genome |
| 992 | 14164 | 27224 | 0.3 | 6.9E-01 | U69674.1 | NT | Candida albicans equaleone epoxide (CAERG1) gene, complete cds and translational regulator gene, partial cds |
| 992 | 14164 | 27225 | 0.3 | 6.9E-01 | U69674.1 | NT | Candida albicans squalene epoxide (CAERG1) gene, complete cds and translational regulator gene, partial cds |
| 1338 | 14495 | 27565 | 2.91 | 6.9E-01 | AA593530.1 | EST_HUMAN | nt28a09.s1 NCI_CGAP_Gas1 Homo sapiens cDNA clone IMAGE:1085176 3' |
| 3291 | 16465 | 29484 | 1.71 | 6.9E-01 | AE002217.2 | NT | Chlamydia muridarum, section 3 of 85 of the complete genome |
| 3531 | 16638 | 29707 | 16.79 | 6.9E-01 | Y17973.1 | NT | Mus musculus mRNA for immunoglobulin gamma heavy chain variable region, isolate PC 2811 |
| 5311 | 18428 | 31398 | 97.22 | 6.9E-01 | BE782751.1 | EST_HUMAN | 601465694F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3868943 5' |
| 5902 | 19091 | 32405 | 0.82 | 6.9E-01 | AB035662.1 | NT | Branchiostoma belcheri BtNA3 mRNA for notochord actin, complete cds |
| 6112 | 19262 | 32627 | 0.85 | 6.9E-01 | Y18278.1 | NT | Drosophila melanogaster mRNA for A-kinase anchor protein DAKAP550, partial |
| 6500 | 19698 | 33029 | 1.12 | 6.9E-01 | BE296188.1 | EST_HUMAN | 601177333F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3532328 5' |
| 7978 | 21028 | 34542 | 0.58 | 6.9E-01 | AF248863.1 | NT | Strongylocentrotus purpuratus myosin V, complete cds |
| 8168 | 21250 | 34769 | 2.94 | 6.9E-01 | AL181573.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 69 |
| 8168 | 21250 | 34770 | 2.94 | 6.9E-01 | AL181573.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 69 |
| 8372 | 22447 | 36520 | 0.56 | 6.9E-01 | AF118048.1 | NT | Entamoeba dispar caton transporting ATPase (atpase) gene, partial cds |
| 9896 | 22836 | 38521 | 0.56 | 6.9E-01 | AF206319.1 | NT | Musa acuminata pectate lyase 1 (PL1) mRNA, complete cds |
| 9896 | 22836 | 38521 | 0.56 | 6.9E-01 | AF206319.1 | NT | Musa acuminata pectate lyase 1 (PL1) mRNA, complete cds |
| 10619 | 23653 | 37263 | 0.78 | 6.9E-01 | BF242307.1 | EST_HUMAN | 601880600F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4106419 5' |
| 11536 | 24592 | 38268 | 2.11 | 6.9E-01 | D89013.1 | NT | Homo sapiens DAN gene, complete cds |
| 11536 | 24592 | 38268 | 2.11 | 6.9E-01 | D89013.1 | NT | Homo sapiens DAN gene, complete cds |
| 12148 | 25949 | | 3.77 | 6.9E-01 | Q99688 | SWISSPROT | FORHEAD BOX PROTEIN C2 (FORHEAD-RELATED PROTEIN FKHL14) (MESENCHYME FORK HEAD PROTEIN 1) (MFH-1 PROTEIN) (TRANSCRIPTION FACTOR FKHL14) |

Page 43 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 979 | 14152 | 27212 | 1.94 | 6.8E-01 | AF017784.1 | NT | Giardia intestinalis carbamate kinase gene, complete cds |
| 2739 | 15866 | | 1.41 | 6.8E-01 | D90917.1 | NT | Synechocystis sp. PCC6803 complete genome, 27127, 3418852-3573470 |
| 2890 | 14798 | 27883 | 1.43 | 6.8E-01 | AA854475.1 | EST_HUMAN | q17605.e1 Soares parathyroid tumor_NbHPA Homo sapiens cDNA clone IMAGE:1402256 3' similar to gb:XS6411.maf ALCOHOL DEHYDROGENASE CLASS II PI CHAIN (HUMAN); |
| 4694 | 17829 | 30815 | 1.32 | 6.8E-01 | J00762.1 | NT | Rat(hooded) prolactin gene: exon III and flanks |
| 4980 | 18109 | 31085 | 0.82 | 6.8E-01 | 4758521 | NT | Homo sapiens hevln (HEVIN) mRNA |
| 8838 | 22878 | 38460 | 1.06 | 6.8E-01 | AB037768.1 | NT | Homo sapiens mRNA for KIAA1345 protein, partial cds |
| 10567 | 23602 | | 6.72 | 6.8E-01 | AA087936.1 | EST_HUMAN | Human HMG-17 gene for non-histone chromosomal protein (HUMAN); |
| 11344 | 24407 | 38056 | 2.4 | 6.8E-01 | AJ276975.1 | NT | Stagonospora avenae bgl1 gene for beta-glucosidase, exons 1-4 |
| 11344 | 24407 | 38057 | 2.4 | 6.8E-01 | AJ276975.1 | NT | Stagonospora avenae bgl1 gene for beta-glucosidase, exons 1-4 |
| 11376 | 24437 | 38096 | 1.91 | 6.8E-01 | AF038939.1 | NT | Mus musculus zinc finger protein (Peg3) mRNA, complete cds |
| 11376 | 24437 | 38097 | 1.91 | 6.8E-01 | AF038939.1 | NT | Mus musculus zinc finger protein (Peg3) mRNA, complete cds |
| 11579 | 24633 | 38312 | 1.57 | 6.8E-01 | AF164161.1 | NT | Anopheles gambiae strain M2 translation initiation factor 4C (1A) (aIF-4C) mRNA, complete cds |
| 11906 | 24893 | 38594 | 1.97 | 6.8E-01 | AF110520.1 | NT | Mus musculus major histocompatibility complex region NG27, NG28, RPS28, NADH oxidoreductase, NG29, KIFC1, Fas-binding protein, BING1, lapasin, RafGDS-like, KE2, BING4, beta 1,3-galactosyl transferase, and RPS18 genes, complete cds; Sacm21 gene, partial> |
| 11908 | 24893 | 38595 | 1.97 | 6.8E-01 | AF110520.1 | NT | Mus musculus major histocompatibility complex region NG27, NG28, RPS28, NADH oxidoreductase, NG29, KIFC1, Fas-binding protein, BING1, lapasin, RafGDS-like, KE2, BING4, beta 1,3-galactosyl transferase, and RPS18 genes, complete cds; Sacm21 gene, partial> |
| 309 | 13525 | 28559 | 30.38 | 6.7E-01 | AF213984.1 | NT | Homo sapiens nuclear factor of kappa light polypeptide gene enhancer in B-cells 1 (NFKB1) gene, complete cds |
| 349 | 13580 | 28588 | 25.24 | 6.7E-01 | AF213984.1 | NT | Homo sapiens nuclear factor of kappa light polypeptide gene enhancer in B-cells 1 (NFKB1) gene, complete cds |
| 1861 | 15104 | | 1.14 | 6.7E-01 | M12132.1 | NT | Quail test skeletal muscle tropomyosin I gene, complete cds |
| 2214 | 15348 | 28477 | 1.98 | 6.7E-01 | AA451864.1 | EST_HUMAN | zxc12g12.s1 Soares fetal_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:786310 3' similar to contains element TAR1 repetitive element; |
| 2235 | 16058 | 28498 | 5.15 | 6.7E-01 | AF186073.1 | NT | Drosophila melanogaster Met85C gene, complete cds; NMDMC isoform (Nmdmc) gene, complete cds, alternatively spliced; and transcription factor (Relish) gene, complete cds, alternatively spliced |
| 3080 | 16238 | 29256 | 5.81 | 6.7E-01 | 6878580 | NT | Mus musculus Wiskott-Aldrich syndrome protein (Wasp), mRNA |
| 4575 | 17712 | 30696 | 0.62 | 6.7E-01 | X74421.1 | NT | S.tuberosum mRNA for glucose-6-phosphate dehydrogenase |
| 5826 | 18820 | 31894 | 1.44 | 6.7E-01 | J04836.1 | NT | M.barkeri ATPase alpha and beta subunit (atpA and atpB) genes, complete cds |
| 5826 | 18820 | 31895 | 1.44 | 6.7E-01 | J04836.1 | NT | M.barkeri ATPase alpha and beta subunit (atpA and atpB) genes, complete cds |

Page 44 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6083 | 19266 | 32594 | 0.79 | 6.7E-01 | AE001486.1 | NT | Helicobacter pylori, strain J99 section 47 of 132 of the complete genome |
| 6463 | 19820 | 32983 | 1.3 | 6.7E-01 | 9635035 | NT | Gallid herpesvirus 2, complete genome |
| 6453 | 19920 | 32984 | 1.3 | 6.7E-01 | 9635035 | NT | Gallid herpesvirus 2, complete genome |
| 6754 | 19910 | 33304 | 0.59 | 6.7E-01 | BE966241.2 | EST_HUMAN | G01650177R1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3905778 3' |
| 6754 | 19910 | 33305 | 0.59 | 6.7E-01 | BE966241.2 | EST_HUMAN | G01650177R1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3905778 3' |
| 7468 | 20543 | | 3.97 | 6.7E-01 | AE004606.1 | NT | Pseudomonas aeruginosa PA01, section 167 of 529 of the complete genome |
| 7495 | 20570 | 34042 | 0.94 | 6.7E-01 | AE001486.1 | NT | Helicobacter pylori, strain J99 section 47 of 132 of the complete genome |
| 10348 | 23383 | | 1.01 | 6.7E-01 | M34046.1 | NT | Human placental protein 14 (PP14) gene, complete cds |
| 11198 | 24265 | 37900 | 2.06 | 6.7E-01 | BF354649.1 | EST_HUMAN | OM3-HT0769-010600-197-c03 HT0769 Homo sapiens cDNA |
| 11748 | 23932 | 37668 | 2.75 | 6.7E-01 | O14357 | SWISSPROT | N-ACETYLGLUCOSAMINYL-PHOSPHATIDYLINOSITOL BIOSYNTHETIC PROTEIN GPII |
| 11858 | 24944 | 38649 | 2.48 | 6.7E-01 | AA342521.1 | EST_HUMAN | EST48065 Fetal spleen Homo sapiens cDNA 3' and |
| 2570 | 15695 | 28819 | 0.97 | 6.6E-01 | AF075240.1 | NT | Homo sapiens SLIT1 protein (SLIT2) mRNA, partial cds |
| 2765 | 15880 | 28989 | 1.13 | 6.6E-01 | AF169339.1 | NT | Homo sapiens lens epithelium-derived growth factor gene, alternatively spliced, complete cds |
| 3578 | 16743 | 29760 | 1.16 | 6.6E-01 | 4506880 | NT | Homo sapiens sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 5A (SEMA5A) mRNA |
| 3748 | 16909 | 29913 | 4.58 | 6.6E-01 | Y07669.1 | NT | C.albicans random DNA marker, 282bp |
| 4225 | 17373 | | 2.48 | 6.6E-01 | U91328.1 | NT | Human hereditary haemochromatosis region, histone 2A-like protein gene, hereditary haemochromatosis (HLA-H) gene, RoRet gene, and sodium phosphate transporter (NPT3) gene, complete cds |
| 6462 | 19829 | 32990 | 3.82 | 6.6E-01 | 6680577 | NT | Mus musculus kinesin light chain 2 (Klc2), mRNA |
| 7272 | 20355 | 33808 | 0.62 | 6.6E-01 | AE004458.1 | NT | Pseudomonas aeruginosa PA01, section 19 of 529 of the complete genome |
| 7272 | 20355 | 33809 | 0.62 | 6.6E-01 | AE004458.1 | NT | Pseudomonas aeruginosa PA01, section 19 of 529 of the complete genome |
| 7882 | 20916 | 34421 | 3.7 | 6.6E-01 | AV680508.1 | EST_HUMAN | AV680508 GLC Homo sapiens cDNA clone GLCGID04 3' |
| 8784 | 21843 | 36384 | 0.88 | 6.6E-01 | AV704700.1 | EST_HUMAN | AV704700 ADB Homo sapiens cDNA clone ADBCAF11 5' |
| 9885 | 22805 | | 2.34 | 6.6E-01 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 10207 | 23243 | | 0.51 | 6.6E-01 | AU118188.1 | EST_HUMAN | AU118188 HEMBA1 Homo sapiens cDNA clone HEMBA1003079 5' |
| 640 | 13825 | 26848 | 2.02 | 6.6E-01 | M75140.1 | NT | H.vulgaris Na,K-ATPase alpha subunit mRNA, complete cds |
| 640 | 13826 | 26849 | 2.02 | 6.6E-01 | M75140.1 | NT | H.vulgaris Na,K-ATPase alpha subunit mRNA, complete cds |
| 3519 | 16885 | 28696 | 5.6 | 6.6E-01 | AB041223.1 | NT | Mus musculus gene for Tob2, complete cds |
| 4148 | 17300 | 30292 | 1.73 | 6.6E-01 | 4504832 | NT | Homo sapiens interleukin 10 receptor, alpha (IL10RA) mRNA |
| 4397 | 17540 | 30521 | 7.71 | 6.6E-01 | AJ272265.1 | NT | Homo sapiens SPP2 gene for secreted phosphoprotein 24 precursor, exons 1-8 |
| 5174 | 18298 | 31258 | 2.88 | 6.6E-01 | U28921.1 | NT | Phaseolus vulgaris ATPase gamma subunit mRNA, nuclear gene encoding mitochondrial protein, partial cds |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 5559 | 25807 | 31795 | 1.66 | 6.5E-01 | P18480 | SWISSPROT | TRANSCRIPTION REGULATORY PROTEIN SNF5 (SWI5NF COMPLEX COMPONENT SNF5) (TRANSCRIPTION FACTOR TFE4) |
| 6865 | 20017 | 33428 | 1.3 | 6.5E-01 | D88348.1 | NT | Chicken mRNA for 116-kDa melanocortin matrix protein, complete cds |
| 7780 | 20819 | 34309 | 0.74 | 6.5E-01 | X04769.1 | NT | Murine Ig-related lambda(50) gene (exon 1) transcribed selectively in pre-B lymphocytes |
| 7846 | 20901 | 34404 | 0.69 | 6.5E-01 | A1769882.1 | EST_HUMAN | wc4602.x1 NCL_CGAP_P28 Homo sapiens cDNA clone IMAGE:2321842 3' |
| 10042 | 23080 | | 0.86 | 6.5E-01 | I78904.1 | EST_HUMAN | yc21b04.s1 Soares fetal liver spleen TNF1L5 Homo sapiens cDNA clone IMAGE:108847 3' |
| 10542 | 23577 | 37186 | 2.53 | 6.5E-01 | AF118876.1 | NT | Mus musculus small GTP-binding protein RAB25 (Rab25) gene, complete cds |
| 10899 | 23954 | 37583 | 2.55 | 6.5E-01 | H87583.1 | EST_HUMAN | yw1706.r1 Soares_placenta_8kbWeeks_2NbhP8tc9W Homo sapiens cDNA clone IMAGE:262615 5' |
| 10925 | 24008 | 37843 | 2.98 | 6.5E-01 | AA601287.1 | EST_HUMAN | nt15c07.s1 NCL_CGAP_Phe1 Homo sapiens cDNA clone IMAGE:1100748 3' |
| 11030 | 24109 | | 3.38 | 6.5E-01 | AU138078.1 | EST_HUMAN | AU138078 PLACE1 Homo sapiens cDNA clone IMAGE:1007810 5' |
| 11899 | 24887 | 38596 | 5.43 | 6.5E-01 | AF014115.1 | NT | Plasmodium berghei cytochrome c oxidase subunit III, cytochrome c oxidase subunit I, and cytochrome b genes, mitochondrial genes encoding mitochondrial proteins, complete cds |
| 12566 | 25388 | | 8.69 | 6.5E-01 | BE465030.1 | EST_HUMAN | hw74a10.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3179130 3' |
| 12840 | 25889 | | 3.83 | 6.5E-01 | Z74145.1 | NT | S.cerevisiae chromosome IV reading frame ORF YDL087c |
| 262 | 13481 | 26613 | 8.58 | 6.4E-01 | U48848.1 | NT | Drosophila melanogaster 8kd dynein light chain mRNA, complete cds |
| 3545 | 16710 | 29721 | 4.42 | 6.4E-01 | U48854.2 | NT | Mus musculus dystroglycan 1 (DAG1) gene, exons 1 and 2 and complete cds |
| 3984 | 17122 | 30126 | 1.46 | 6.4E-01 | AB046827.1 | NT | Homo sapiens mRNA for KIAA1607 protein, partial cds |
| 4614 | 17751 | 30731 | 0.74 | 6.4E-01 | Y12488.1 | NT | M.musculus whn gene |
| 4614 | 17751 | 30732 | 0.74 | 6.4E-01 | Y12488.1 | NT | M.musculus whn gene |
| 8812 | 21891 | 35432 | 1.58 | 6.4E-01 | AE001247.1 | NT | Trigonema pallidum section 63 of 87 of the complete genome |
| 10221 | 23257 | | 0.5 | 6.4E-01 | 11418320 | NT | Homo sapiens hypothetical protein FLJ10140 (FLJ10140), mRNA |
| 10294 | 23329 | 36833 | 7.31 | 6.4E-01 | U82828.1 | NT | Homo sapiens elaxia telangiectasia (ATM) gene, complete cds |
| 10309 | 23344 | 36949 | 1.31 | 6.4E-01 | BF670405.1 | EST_HUMAN | 602160289F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4281128 5' |
| 12693 | 25481 | | 19.53 | 6.4E-01 | AV759212.1 | EST_HUMAN | AV759212 MDS Homo sapiens cDNA clone MDSG009 5' |
| 447 | 13643 | 26682 | 3.76 | 6.3E-01 | P05228 | SWISSPROT | HISTIDINE-RICH PROTEIN PRECURSOR (CLONE PFHRP-II) |
| 548 | 13741 | 26765 | 1.85 | 6.3E-01 | U32689.1 | NT | Haemophilus influenzae Rd section 4 of 163 of the complete genome |
| 2230 | 15384 | 28493 | 3.29 | 6.3E-01 | U81186.1 | NT | Shigella flexneri multi-antigen resistance locus |
| 2646 | 15769 | 28884 | 3.65 | 6.3E-01 | U75331.1 | NT | Gallus gallus bone morphogenetic protein 1 (BMP1) mRNA, partial cds |
| 2646 | 15769 | 28885 | 3.65 | 6.3E-01 | U75331.1 | NT | Gallus gallus bone morphogenetic protein 1 (BMP1) mRNA, partial cds |
| 3081 | 16267 | | 0.83 | 6.3E-01 | Y17275.1 | NT | Lycopodium obscurum pds gene, complete CDS |
| 6189 | 19365 | 32713 | 0.84 | 6.3E-01 | BE069608.1 | EST_HUMAN | PMD-BT0767-010500-002-005 BT0767 Homo sapiens cDNA |
| 6733 | 19889 | 33281 | 1.01 | 6.3E-01 | I27798.1 | NT | Streptococcus dysgalactiae (mag) gene, complete cds |
| 6733 | 19889 | 33282 | 1.01 | 6.3E-01 | I27798.1 | NT | Streptococcus dysgalactiae (mag) gene, complete cds |

Page 46 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8718 | 21798 | | 3.44 | 6.3E-01 | BE902044.1 | EST_HUMAN | 601676889F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3959351 5' |
| 9087 | 22166 | 35712 | 0.79 | 6.3E-01 | S62927.1 | NT | glycoprotein Ila (Alu 1 and 3 fusion) [human, Genomic Mutant, 300 nt] |
| 9421 | 22495 | 36062 | 0.65 | 6.3E-01 | BF216994.1 | EST_HUMAN | 601684050F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4102698 5' |
| 9620 | 22675 | 36245 | 3.14 | 6.3E-01 | 9627521 | NT | Variola virus, complete genome |
| 9620 | 22675 | 36246 | 3.14 | 6.3E-01 | 9627521 | NT | Variola virus, complete genome |
| 10142 | 23180 | | 0.69 | 6.3E-01 | AE002329.2 | NT | Chlamydia muridarum, section 59 of 85 of the complete genome |
| 10441 | 23675 | 37285 | 1.59 | 6.3E-01 | Z73003.1 | NT | S.cerevisiae chromosome VII reading frame ORF YGR218w |
| 10747 | 23780 | 37393 | 1 | 6.3E-01 | AE000313.1 | NT | Escherichia coli K-12 MG1655 section 203 of 400 of the complete genome |
| 10781 | 23814 | | 0.48 | 6.3E-01 | AW795395.1 | EST_HUMAN | PMD-UM00018-130500-003-g12 UM0018 Homo sapiens cDNA |
| 11315 | 24379 | 38024 | 1.78 | 6.3E-01 | AA877716.1 | EST_HUMAN | m08n08.s1 NCI_CGAP_Co10 Homo sapiens cDNA clone IMAGE:1161371 3' similar to TR:002816 002816 HLARK. |
| 11620 | 24671 | 38359 | 6.18 | 6.3E-01 | AI904180.1 | EST_HUMAN | CN-BT043-090299-046 BT043 Homo sapiens cDNA |
| 11703 | 24749 | 38442 | 1.69 | 6.3E-01 | P47003 | SWISSPROT | HYPOTHETICAL 13.7 KD PROTEIN IN INO1-IDS2 INTERGENIC REGION |
| 11888 | 24876 | 38573 | 2.12 | 6.3E-01 | P38073 | SWISSPROT | HYPOTHETICAL 15.3 KD PROTEIN IN VMA12-APN1 INTERGENIC REGION |
| 12086 | 25068 | 38772 | 1.47 | 6.3E-01 | 9838361 | NT | Beta vulgaris mitochondrion, complete genome |
| 12262 | 28130 | 31549 | 15.92 | 6.3E-01 | 9910283 | NT | Homo sapiens 3'-phosphoadenosine 5'-phosphosulfate synthetase (PAPS) mRNA, complete cds |
| 12358 | 28257 | | 1.6 | 6.3E-01 | AF106227.1 | NT | C.limicola pscD gene |
| 12882 | 28029 | | 4.27 | 6.3E-01 | X83528.1 | NT | HYPOTHETICAL 142.5 KD PROTEIN C23E2.02 IN CHROMOSOME 1 |
| 5991 | 18176 | 32497 | 2.16 | 6.2E-01 | Q10135 | SWISSPROT | Mus musculus calcium-sensing receptor related protein 4 (CaSR-rs4) mRNA, partial cds |
| 7664 | 20731 | | 3.59 | 6.2E-01 | AF022253.1 | NT | Mus musculus chromosome X contigA; putative Magea9 gene, Caltractin, NAD(P) steroid dehydrogenase and Zinc finger protein 185 |
| 7715 | 25652 | 34286 | 1.16 | 6.2E-01 | AL021127.2 | NT | ye01608.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:213542 3' |
| 8497 | 21578 | 35114 | 4.07 | 6.2E-01 | H72255.1 | EST_HUMAN | dehydratase/esculentum cytosolic Cu,Zn superoxide dismutase (Sod) gene, partial cds; and dehydroquinolate |
| 9057 | 22135 | 35681 | 0.7 | 6.2E-01 | AF034411.1 | NT | Lycopodium esculentum cytosolic Cu,Zn superoxide dismutase (Sod) gene, complete cds |
| 9848 | 21091 | 34606 | 1.47 | 6.2E-01 | BE502887.1 | EST_HUMAN | 601336146F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3690010 5' |
| 9710 | 22759 | | 2.56 | 6.2E-01 | M24481.1 | NT | Human pulmonary surfactant-associated protein SP-B (SFTPB) mRNA, complete cds |
| 10263 | 23318 | 36919 | 6.83 | 6.2E-01 | AL161511.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 23 |
| 10426 | 23461 | 37067 | 0.63 | 6.2E-01 | 11420763 | NT | Homo sapiens potassium voltage-gated channel, Shab-related subfamily, member 1 (KCNB1), mRNA |
| 10426 | 23461 | 37068 | 0.63 | 6.2E-01 | 11420763 | NT | Homo sapiens potassium voltage-gated channel, Shab-related subfamily, member 1 (KCNB1), mRNA |
| 10756 | 23789 | 37405 | 5.75 | 6.2E-01 | P27410 | SWISSPROT | NON-STRUCTURAL POLYPEPTIDE [CONTAINS: RNA-DIRECTED RNA POLYMERASE; THIOL PROTEASE P3C; HELICASE (2C LIKE PROTEIN); COAT PROTEIN] |

Page 47 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 10756 | 23789 | 37406 | 6.76 | 6.2E-01 | P27410 | SWISSPROT | NON-STRUCTURAL POLYPROTEIN [CONTAINS: RNA-DIRECTED RNA POLYMERASE, THIOL PROTEASE P3C; HELICASE (2C LIKE PROTEIN); COAT PROTEIN] |
| 2468 | 15586 | | 6.27 | 6.1E-01 | 0678076 | NT | Mus musculus secreted acidic cytoline rich glycoprotein (Sparc), mRNA |
| 5653 | 18847 | 32129 | 1.33 | 6.1E-01 | M59940.1 | NT | Caenorhabditis elegans N2 CcmYdD (hlt-1) alternatively spliced genes, complete cds |
| 7009 | 20145 | 33564 | 3.4 | 6.1E-01 | M64733.1 | NT | Rat TRPM-2 gene, complete cds |
| 7009 | 20145 | 33565 | 3.4 | 6.1E-01 | M64733.1 | NT | Rat TRPM-2 gene, complete cds |
| 7160 | 20293 | 33736 | 0.87 | 6.1E-01 | AW105653.1 | EST_HUMAN | xd60h03.x1 NCI_CGAP_Ov23 Homo sapiens cDNA clone IMAGE:2597237 3' similar to gb:X12871_ma1 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1 (HUMAN); SUSHI REPEAT-CONTAINING PROTEIN SRPX PRECURSOR (DRS PROTEIN) (DOWN-REGULATED BY V-SRC) |
| 7254 | 20337 | 33787 | 0.69 | 6.1E-01 | Q63769 | SWISSPROT | Arabidopsis thaliana putative zinc transporter (ZIP1) mRNA, complete cds |
| 8428 | 21503 | 35041 | 3.47 | 6.1E-01 | AF033535.1 | NT | Homo sapiens mitogen-activated protein kinase kinase kinase 4 (MAP4K4), mRNA |
| 8965 | 22074 | 36612 | 1.51 | 6.1E-01 | 11431085 | NT | Homo sapiens mitogen-activated protein kinase kinase kinase 4 (MAP4K4), mRNA |
| 8995 | 22074 | 35613 | 1.51 | 6.1E-01 | 11431086 | NT | Homo sapiens G-protein coupled receptor EDG-7 mRNA, complete cds |
| 9815 | 22670 | 36239 | 20.44 | 6.1E-01 | AF236117.1 | NT | Homo sapiens G-protein coupled receptor EDG-7 mRNA, complete cds |
| 9815 | 22670 | 36240 | 20.44 | 6.1E-01 | AF236117.1 | NT | Homo sapiens G-protein coupled receptor EDG-7 mRNA, complete cds |
| 10047 | 23085 | 36688 | 1.06 | 6.1E-01 | AE004462.1 | NT | Pseudomonas aeruginosa PA01, section 13 of 528 of the complete genome |
| 10282 | 23287 | 36883 | 0.92 | 6.1E-01 | AF119117.1 | NT | Homo sapiens dopamine transporter (SLC6A3) gene, complete cds |
| 10833 | 23665 | 37489 | 0.47 | 6.1E-01 | AF026083.1 | NT | Sus scrofa neural cell adhesion molecule (NCAM) gene, 3' UTR and microsatellite repeat region |
| 12033 | 25016 | 38718 | 1.77 | 6.1E-01 | S83182.1 | NT | hyaluronan-binding protein=hepatocyte growth factor activator homolog [human, plasma, mRNA, 2408 nt] |
| 12033 | 25016 | 38719 | 1.77 | 6.1E-01 | S83182.1 | NT | hyaluronan-binding protein=hepatocyte growth factor activator homolog [human, plasma, mRNA, 2408 nt] |
| 13082 | 25695 | | 1.16 | 6.1E-01 | X65287.1 | NT | M.mazal orfA, orfB, and orfC of archaeal ABC-transporter system |
| 507 | 13701 | 28730 | 1.79 | 6.0E-01 | D87875.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 575 | 13767 | | 4.74 | 6.0E-01 | 5802999 | NT | Homo sapiens adaptor-related protein complex 3, mu 2 subunit (GLA20), mRNA |
| 1393 | 14547 | 27823 | 1.83 | 6.0E-01 | AF065263.1 | NT | Human respiratory syncytial virus strain CH83-53b attachment protein (G) gene, complete cds |
| 3917 | 17076 | 30073 | 0.87 | 6.0E-01 | AJ233396.1 | NT | Viral hemorrhagic septicemia virus N, P, M, G, Nv, L genes, French strain 07-71 |
| 4305 | 17448 | | 1.26 | 6.0E-01 | AF058895.1 | NT | Homo sapiens Notch3 (NOTCH3) gene, exons 28, 27, and 28 |
| 5395 | 18597 | 31567 | 1.98 | 6.0E-01 | P20288 | SWISSPROT | D(2) DOPAMINE RECEPTOR |
| 5555 | 18753 | 31791 | 2.5 | 6.0E-01 | AW139713.1 | EST_HUMAN | UHH-B1-aeb-a-10-Q-U1.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2718619 3' |
| 6689 | 19828 | 33216 | 2.74 | 6.0E-01 | U38813.1 | NT | Musca domestica insecticide-susceptible strain voltage-sensitive sodium channel mRNA, complete cds |
| 6800 | 19955 | 33355 | 0.88 | 6.0E-01 | Q04912 | SWISSPROT | MACROPHAGE-STIMULATING PROTEIN RECEPTOR PRECURSOR (MSP RECEPTOR) (P185-RON) (CDW136) (CD136 ANTIGEN) |

Page 48 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 8955 | 20268 | 33705 | 0.77 | 6.0E-01 | L10234.1 | NT | Strongylocentrotus purpuratus kinesin light chain isoform 2 mRNA, complete cds |
| 8955 | 20268 | 33706 | 0.77 | 6.0E-01 | L10234.1 | NT | Strongylocentrotus purpuratus kinesin light chain isoform 2 mRNA, complete cds |
| 7509 | 20583 | 34066 | 6.49 | 6.0E-01 | AJ277691.1 | NT | Homo sapiens partial LMO1 gene for LIM domain only 1 protein, exon 1 |
| 8315 | 21397 | 34922 | 4.15 | 6.0E-01 | P02835 | SWISSPROT | SEGMENTATION PROTEIN FUSHI TARAZU |
| 8315 | 21397 | 34923 | 4.15 | 6.0E-01 | P02835 | SWISSPROT | SEGMENTATION PROTEIN FUSHI TARAZU |
| 10028 | 23086 | 36664 | 1.57 | 6.0E-01 | AB008163.1 | NT | Homo sapiens genes for leukotriene B4 receptor BLT2, leukotriene B4 receptor BLT1, complete cds |
| 10480 | 23516 | | 1.04 | 6.0E-01 | Q01487 | SWISSPROT | PEROXISOMAL MEMBRANE PROTEIN PEROXIN-3 |
| 10594 | 23626 | | 0.81 | 6.0E-01 | BE837779.1 | EST_HUMAN | RC2-FN0094-190700-017-d08 FN0094 Homo sapiens cDNA |
| 11312 | 24376 | 38021 | 1.38 | 6.0E-01 | AJ131892.1 | NT | Gallus gallus mRNA for Hyperion protein, 419 kD isoform |
| 11312 | 24376 | 38022 | 1.38 | 6.0E-01 | AJ131892.1 | NT | Gallus gallus mRNA for Hyperion protein, 419 kD isoform |
| 11946 | 24835 | 39528 | 2.74 | 6.0E-01 | AJ420623.1 | EST_HUMAN | H08107.X1 NCJ CGAP_P128 Homo sapiens cDNA clone IMAGE:2095621 3' |
| 12663 | 25440 | 32062 | 2.08 | 6.0E-01 | 11421663 | NT | Homo sapiens nuclear factor (erythroid-derived 2)-like 3 (NFE2L3), mRNA |
| 12781 | 25523 | | 1.46 | 6.0E-01 | AA706087.1 | EST_HUMAN | 299g05.s1 Soares fetal liver spleen, NF-L5, S1 Homo sapiens cDNA clone IMAGE:462776 3' |
| 12953 | 25953 | | 1.44 | 6.0E-01 | 5803136 | NT | Homo sapiens RNA binding motif protein 3 (RBM3), mRNA |
| 12968 | 25963 | 31786 | 5.48 | 6.0E-01 | 9055303 | NT | Mus musculus cGMP-inhibited phosphodiesterase (Pde3a), mRNA |
| 13032 | 25980 | | 8.12 | 6.0E-01 | BE157617.1 | EST_HUMAN | RC1-HT0375-030500-015-c03 HT0375 Homo sapiens cDNA |
| 1025 | 14195 | 27284 | 1.09 | 6.0E-01 | U32701.1 | NT | Haemophilus influenzae Rd section 16 of 163 of the complete genome |
| 3343 | 16515 | 29530 | 5.23 | 6.0E-01 | AL163267.2 | NT | Homo sapiens chromosome 21 segment HS21C067 |
| 3343 | 16516 | 29531 | 5.23 | 6.0E-01 | AL163267.2 | NT | Homo sapiens chromosome 21 segment HS21C067 |
| 3916 | 17075 | 30072 | 0.82 | 6.0E-01 | U74341.1 | NT | Pterodroma neglecta cytochrome b (cytb) gene, mitochondrial gene encoding mitochondrial protein, complete cds |
| 4337 | 17480 | | 3.85 | 6.0E-01 | AF162756.1 | NT | Rattus norvegicus cenadn 2 mRNA, partial cds |
| 5289 | 18407 | 31374 | 0.66 | 6.0E-01 | AF026566.1 | NT | Ovis aries SRY gene promoter region |
| 6594 | 19754 | 33140 | 1.95 | 6.0E-01 | AF095440.2 | NT | Homo sapiens low density lipoprotein receptor-related protein II (LRP2) gene, exon 1 and partial cds |
| 7416 | 20494 | 33962 | 3.08 | 6.0E-01 | AB023486.1 | NT | Homo sapiens gene for histamine H2 receptor, promoter region and complete cds |
| 7556 | 20628 | | 0.93 | 6.0E-01 | X68801.1 | NT | G. gallus gene for skeletal alpha-actinin, exon EF2 |
| 8188 | 21270 | 34795 | 0.48 | 6.0E-01 | D90911.1 | NT | Synechocystis sp. PCC6803 complete genome, 13/27, 1576593-1718843 |
| 8838 | 21818 | 35456 | 0.48 | 6.0E-01 | D12922.1 | NT | Legionella pneumophila gene for iron superoxide dismutase, complete cds |
| 9743 | 22807 | 36386 | 1.01 | 6.0E-01 | AF083204.2 | NT | Chlamydia trachomatis strain K/UW-3/Cx major outer membrane protein (omp1) gene, complete cds |
| 10117 | 23155 | | 0.64 | 6.0E-01 | P06463 | SWISSPROT | E6 PROTEIN |
| 10391 | 23426 | 37033 | 1.28 | 6.0E-01 | P65284 | SWISSPROT | VASCULAR ENDOTHELIAL-CADHERIN PRECURSOR (VE-CADHERIN) (CADHERIN-5) |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 10908 | 23991 | 37624 | 2.24 | 5.9E-01 | Q9X013 | SWISSPROT | THYMIDYLATE KINASE (DTMP KINASE) |
| 10916 | 23999 | 37632 | 1.71 | 5.9E-01 | AF167944.1 | NT | Xenopus laevis receptor protein tyrosine phosphatase delta (XPTP-D) mRNA, complete cds |
| 11203 | 24272 | 37908 | 2.76 | 5.9E-01 | AW937175.1 | EST_HUMAN | PM1-DT0041-190100-002-h03 DT0041 Homo sapiens cDNA |
| 11469 | 24528 | 38201 | 1.98 | 5.9E-01 | AF084626.1 | NT | Mus spretus strain SPRET/EI CD48 antigen (Cd48) gene, partial cds |
| 12302 | 25220 | 32101 | 1.78 | 5.9E-01 | L42320.1 | NT | Oryzidag cuniculus alpha 1 anti-trypsin (alpha 1 AT) gene, promoter region |
| 12549 | 25372 | | 1.92 | 5.9E-01 | AB017705.1 | NT | Aspergillus nysae pyrG gene for orotidine-5'-phosphate decarboxylase, complete cds |
| 12799 | 25533 | | 4.82 | 5.9E-01 | P34926 | SWISSPROT | MICROTUBULE-ASSOCIATED PROTEIN 1A [CONTAINS: MAP1 LIGHT CHAIN LC2] |
| 1858 | 15101 | 28201 | 1.28 | 5.9E-01 | P40472 | SWISSPROT | SIM1 PROTEIN |
| 4092 | 17247 | 30252 | 1.11 | 5.9E-01 | BF695738.1 | EST_HUMAN | 601852474F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4076131 5' |
| 4637 | 17773 | 30763 | 3.59 | 5.9E-01 | AB009077.1 | NT | Vigna radiata mRNA for proton pyrophosphatase, complete cds |
| 4917 | 18047 | | 2.23 | 5.9E-01 | AF110846.1 | NT | Megascella scalaris sex-lethal homolog (Mgsxl) gene, partial cds, alternatively spliced products |
| 5490 | 18699 | | 1.02 | 5.9E-01 | AE002162.1 | NT | Ureaplasma urealyticum section 53 of 59 of the complete genome |
| 5648 | 18842 | 32123 | 0.81 | 5.9E-01 | Q10699 | SWISSPROT | POTENTIAL 5'-3' EXONUCLEASE |
| 6313 | 19485 | 32840 | 1.69 | 5.9E-01 | D78859.1 | EST_HUMAN | HUM500E068 Human placenta polyA+ (Tfujliwara) Homo sapiens cDNA clone GEN-500E06 5' |
| 6442 | 19609 | 32972 | 0.58 | 5.9E-01 | D50801.1 | NT | Shigella sonnei DNA for 28 ORFs, complete cds |
| 6952 | 20265 | | 2.37 | 5.9E-01 | S60091.1 | NT | cyclic AMP-regulated phosphoprotein [rats, mRNA, 1030 nt] |
| 8071 | 21153 | | 2.87 | 5.9E-01 | H41671.1 | EST_HUMAN | Yn91b03 at Soares adult brain N265HB55Y Homo sapiens cDNA clone IMAGE:175767 3' similar to |
| 8278 | 21360 | 34878 | 0.66 | 5.9E-01 | A1280051.1 | EST_HUMAN | gb:S78187 M-PHASE INDUCER PHOSPHATASE 2 (HUMAN); |
| 8278 | 21360 | 34878 | 0.66 | 5.9E-01 | A1280051.1 | EST_HUMAN | qh85d10.X1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1863779 3' |
| 8385 | 21466 | 34991 | 2.71 | 5.9E-01 | P14328 | SWISSPROT | qh85d10.X1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1863779 3' |
| 8385 | 21466 | 34992 | 2.71 | 5.9E-01 | P14328 | SWISSPROT | SPORE COAT PROTEIN SP88 |
| 9092 | 22171 | 35716 | 10.4 | 5.9E-01 | AJ270774.1 | NT | SPORE COAT PROTEIN SP88 |
| 9172 | 22250 | 35793 | 1.23 | 5.9E-01 | Q27368 | SWISSPROT | Homo sapiens partial TCF-4 gene for T-cell transcription factor-4, exons 8-11 |
| 9173 | 22251 | 35794 | 0.57 | 5.9E-01 | Q20471 | SWISSPROT | TRANSCRIPTION FACTOR E2F |
| 9795 | 22835 | | 0.79 | 5.9E-01 | BF031606.1 | EST_HUMAN | PUTATIVE CASEIN KINASE I F48F2.2 IN CHROMOSOME X |
| 11237 | 24308 | 37643 | 7.26 | 5.9E-01 | AJ243213.1 | NT | 601657774F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:3827298 5' |
| 11291 | 24357 | | 3.36 | 5.9E-01 | BF700092.1 | EST_HUMAN | Homo sapiens partial 5-HT4 receptor gene, exons 2 to 5 |
| 11407 | 24468 | | 1.44 | 5.9E-01 | BF700092.1 | EST_HUMAN | 602127577F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4284403 6' |
| 3108 | 16284 | | 0.73 | 5.7E-01 | 6755263 | NT | 602127577F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4284403 6' |
| 3295 | 16469 | 20488 | 1.46 | 5.7E-01 | Q9W1J2 | SWISSPROT | Mus musculus plasmacytoma variant translocation 1 (Pvt1), mRNA |
| | | | | | | | PUTATIVE TRANSCRIPTION FACTOR OVO-LIKE 1 (OVO1) (MOYO1A) |
| 3593 | 16757 | | 2.84 | 5.7E-01 | AB033503.1 | NT | Populus euramericana peaces-2 mRNA for 1-aminocyclopropane-1-carboxylate synthase, complete cds |
| 6486 | 19662 | 33014 | 4.41 | 5.7E-01 | BF035413.1 | EST_HUMAN | 601454662F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3898590 5' |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 6860 | 20003 | 33412 | 0.92 | 5.7E-01 | AA194201.1 | EST_HUMAN | z38c06.r1 Soares_NIHMPu_S1 Homo sapiens cDNA clone IMAGE:665674 5' |
| 7000 | 18519 | 31512 | 1.15 | 5.7E-01 | AL111440.1 | NT | Botrytis cinerea strain T4 cDNA library under conditions of nitrogen deprivation |
| 7941 | 20991 | 34501 | 1.88 | 5.7E-01 | P00373 | SWISSPROT | PYRROLINE-5-CARBOXYLATE REDUCTASE (P5CR) (P5C REDUCTASE) |
| 8157 | 21239 | | 0.55 | 5.7E-01 | AJ251835.1 | NT | Mus musculus Kcnq1, Ltrpc5, Mash2, Tsc4 and Tsc6 genes, alternative transcripts |
| 10004 | 23042 | 36634 | 1.13 | 5.7E-01 | AL161532.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 32 |
| 10004 | 23042 | 36635 | 1.13 | 5.7E-01 | AL161532.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 32 |
| 10803 | 23836 | 37481 | 0.91 | 5.7E-01 | BF540962.1 | EST_HUMAN | 602067712F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4066810 5' |
| 10803 | 23836 | 37481 | 0.91 | 5.7E-01 | BF540962.1 | EST_HUMAN | 602067712F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4066810 5' |
| 12255 | 25192 | | 1.29 | 5.7E-01 | BE176051.1 | EST_HUMAN | MR3-H10738-180700-003-a02 HT0738 Homo sapiens cDNA |
| 13025 | 26675 | | 1.31 | 5.7E-01 | BE959722.2 | EST_HUMAN | 601654814R1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:3839763 3' |
| 3449 | 16617 | 28635 | 1.1 | 5.6E-01 | AB018283.2 | NT | Homo sapiens mRNA for KIAA0740 protein, partial cds |
| 3449 | 16617 | 28636 | 1.1 | 5.6E-01 | AB018283.2 | NT | Homo sapiens mRNA for KIAA0740 protein, partial cds |
| 3989 | 17146 | 30152 | 0.59 | 5.6E-01 | AL161501.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 13 |
| 4354 | 17497 | 30476 | 0.77 | 5.6E-01 | D83135.1 | NT | Chicken TBP gene, exon8, complete cds |
| 9003 | 22082 | 35625 | 4.11 | 5.6E-01 | AV684703.1 | EST_HUMAN | AV684703 GKC Homo sapiens cDNA clone GKCFSF05 5' |
| 9003 | 22082 | 35626 | 4.11 | 5.6E-01 | AV684703.1 | EST_HUMAN | AV684703 GKC Homo sapiens cDNA clone GKCFSF05 5' |
| 8575 | 22717 | 36285 | 1.13 | 5.6E-01 | AB038782.1 | NT | Homo sapiens MUC3A gene for intestinal mucin, partial cds |
| 12163 | 25123 | | 7.84 | 5.6E-01 | BE888280.1 | EST_HUMAN | 601914007F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3915457 5' |
| 1272 | 25204 | 38382 | 1.39 | 5.6E-01 | AA493535.1 | EST_HUMAN | ng75g10.s1 NCL_CGAP_P18 Homo sapiens cDNA clone IMAGE:940874 similar to contains element P TR7 repetitive element |
| 12861 | 17145 | 30152 | 2.38 | 5.6E-01 | AL161501.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 13 |
| 12880 | 25460 | | 2.66 | 5.6E-01 | P50506 | SWISSPROT | HIGH AFFINITY POTASSIUM TRANSPORTER |
| 13167 | 25758 | | 3.64 | 5.6E-01 | BF573829.1 | EST_HUMAN | 602132028F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4271334 5' |
| 1238 | 14397 | 27459 | 6.04 | 5.5E-01 | 8393812 | NT | Rattus norvegicus Propionyl Coenzyme A carboxylase, beta polypeptide (Pccb), mRNA |
| 2768 | 15881 | 28980 | 9.3 | 5.6E-01 | P03341 | SWISSPROT | GAG POLYPROTEIN (CONTAINS: INNER COAT PROTEIN P12; CORE PROTEIN P15; CORE SHELL PROTEIN P30; NUCLEOPROTEIN P10) |
| 2768 | 15881 | 28991 | 6.3 | 5.5E-01 | P03341 | SWISSPROT | GAG POLYPROTEIN (CONTAINS: INNER COAT PROTEIN P12; CORE PROTEIN P15; CORE SHELL PROTEIN P30; NUCLEOPROTEIN P10) |
| 2955 | 16161 | 29178 | 1.17 | 6.6E-01 | 5802085 | NT | Homo sapiens superkiller viral-like activity 2 (S. cerevisiae homolog)-like (SKIVL), mRNA |
| 3134 | 16310 | | 1.57 | 5.6E-01 | H46219.1 | EST_HUMAN | yo18r10.s1 Soares adult brain N2B54-B55Y Homo sapiens cDNA clone IMAGE:178283 3' |
| 3306 | 16480 | 29501 | 2.93 | 6.5E-01 | AF227240.1 | NT | Rabbit oral papillomavirus, complete genome |
| 3783 | 16944 | 29951 | 1.34 | 6.5E-01 | P48765 | SWISSPROT | FOS-RELATED ANTIGEN-1 |
| 6249 | 18370 | | 1 | 6.5E-01 | AF083868.1 | NT | Melanoplus sanguinipes entomopoxvirus, complete genome |
| 5269 | 18388 | 31355 | 1.01 | 5.6E-01 | U69097.1 | NT | Bos taurus MHC class II beta-chain BoLA-DIB1 gene, partial cds |

Page 51 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 7405 | 20483 | 33950 | 0.59 | 5.9E-01 | AF030001.1 | NT | Mus musculus major histocompatibility locus class III region:butyrophilin-like protein gene, partial cds; Notch4, PBX2, RAGE, lysophosphatidic acid acyl transferase-alpha, palmitoyl-protein thioesterase 2 (PPT2), CREB-RP, and tenascin X (TNX) genes, complex |
| 7405 | 20483 | 33951 | 0.59 | 5.5E-01 | AF030001.1 | NT | Mus musculus major histocompatibility locus class III region:butyrophilin-like protein gene, partial cds; Notch4, PBX2, RAGE, lysophosphatidic acid acyl transferase-alpha, palmitoyl-protein thioesterase 2 (PPT2), CREB-RP, and tenascin X (TNX) genes, complex |
| 7439 | 20516 | | 0.74 | 5.5E-01 | AB015596.1 | NT | Carassius auratus gene for gonadotropin II beta subunit, complete cds |
| 8678 | 21756 | 35291 | 0.47 | 5.5E-01 | BE163243.1 | EST_HUMAN | QV3-HT0458-170200-090-b05 HT0458 Homo sapiens cDNA |
| 8689 | 23008 | | 0.56 | 5.5E-01 | U88415.1 | NT | Chinese-Congo hemorrhagic fever virus strain SPU 415/85 nucleoprotein gene, complete cds |
| 10688 | 23623 | 37230 | 0.83 | 5.5E-01 | T05047.1 | EST_HUMAN | EST02935 Fetal brain, Stragene (cat#836206) Homo sapiens cDNA clone HFBCQ36 |
| 11408 | 24487 | 38132 | 1.64 | 5.5E-01 | BF129507.1 | EST_HUMAN | 60181107R1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4064003 3' |
| 147 | 13372 | 26404 | 8.11 | 5.4E-01 | 7657266 | NT | Homo sapiens KIAA0929 protein Mox2 interacting nuclear target (MINT) homolog (KIAA0929), mRNA |
| 147 | 13372 | 26405 | 8.11 | 5.4E-01 | 7657266 | NT | Homo sapiens KIAA0929 protein Mox2 interacting nuclear target (MINT) homolog (KIAA0929), mRNA |
| 598 | 13789 | 28808 | 1.01 | 5.4E-01 | AF232006.1 | NT | Pseudomonas syringae pv. tomato strain DC3000 AvrE (avrE), HrpW (hrpW), and GsaA (gsaA) genes, complete cds; and unknown genes |
| 598 | 13789 | 28809 | 1.01 | 5.4E-01 | AF232006.1 | NT | Pseudomonas syringae pv. tomato strain DC3000 AvrE (avrE), HrpW (hrpW), and GsaA (gsaA) genes, complete cds; and unknown genes |
| 1300 | 14455 | 27522 | 2.21 | 5.4E-01 | AW896087.1 | EST_HUMAN | QV4-NN0040-070400-160-c04 NN0040 Homo sapiens cDNA |
| 2173 | 15308 | | 2.8 | 5.4E-01 | AED02247.2 | NT | Glaucyphila pneumoniae AR36, section 74 of 84 of the complete genome |
| 2329 | 18451 | 28594 | 2.82 | 5.4E-01 | AJ276882.1 | NT | Drosophila melanogaster mRNA for 15.15' beta carotene dioxygenase (beta-diox gene) |
| 5774 | 18968 | 32269 | 0.83 | 5.4E-01 | AW842327.1 | EST_HUMAN | PM2-CN0030-030200-003-c10 CN0030 Homo sapiens cDNA |
| 6320 | 19492 | 32850 | 0.93 | 5.4E-01 | AB025017.1 | NT | Rattus norvegicus gene for TIS11, complete cds |
| 7170 | 20303 | 33746 | 0.77 | 5.4E-01 | BE968592.2 | EST_HUMAN | 60186027R1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3906090 3' |
| 7480 | 20565 | 34035 | 1.98 | 5.4E-01 | Z21619.1 | NT | S. cerevisiae RIB3 gene encoding DBP synthase |
| 7490 | 20565 | 34038 | 1.96 | 5.4E-01 | Z21619.1 | NT | S. cerevisiae RIB3 gene encoding DBP synthase |
| 7492 | 20567 | 34039 | 1.47 | 5.4E-01 | Q64428 | SWISSPROT | MITOCHONDRIAL TRIFUNCTIONAL ENZYME ALPHA SUBUNIT PRECURSOR (TP-ALPHA) [INCLUDES: LONG-CHAIN ENOYL-COA HYDRATASE; LONG CHAIN 3-HYDROXYACYL-COA DEHYDROGENASE] |
| 10195 | 23232 | | 2.69 | 5.4E-01 | BF572836.1 | EST_HUMAN | 60207694F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:4243690 5' |
| 11354 | 24387 | 38048 | 2.68 | 5.4E-01 | P36858 | SWISSPROT | NITRATE REDUCTASE [NADPH] (NR) |
| 11920 | 24906 | 38607 | 2.78 | 5.4E-01 | Q60875 | SWISSPROT | LAMININ ALPHA-2 CHAIN PRECURSOR (LAMININ M CHAIN) (MEROSIN HEAVY CHAIN) |
| 11920 | 24906 | 38608 | 2.76 | 5.4E-01 | Q60875 | SWISSPROT | LAMININ ALPHA-2 CHAIN PRECURSOR (LAMININ M CHAIN) (MEROSIN HEAVY CHAIN) |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 12039 | 19492 | 32850 | 1.3 | 5.4E-01 | AB025017.1 | NT | Rattus norvegicus gene for TIS11, complete cds |
| 12217 | 25169 | | 2.41 | 5.4E-01 | AI858398.1 | EST_HUMAN | w37g04.x1 NCL_CGAP_U1 Homo sapiens cDNA clone IMAGE:2427128 3' similar to gb:M13462 LAMIN A (HUMAN); |
| 528 | 13722 | 28748 | 2.12 | 5.3E-01 | AF019413.1 | NT | Homo sapiens HLA class III region containing tetrasin X (tetrasin-X) gene, partial cds; cytochrome P450 21-hydroxylase (CYP21B), complement component C4 (C4B) G11, helixase (SK12W), RD, complement factor B (Bf), and complement component C2 (C2) genes> |
| 2843 | 19557 | 28065 | 8.83 | 5.3E-01 | 4508328 | NT | Homo sapiens protein tyrosine phosphatase, receptor-type, zeta polypeptide 1 (PTPRZ1) mRNA |
| 2843 | 19557 | 28066 | 8.83 | 5.3E-01 | 4508328 | NT | Homo sapiens protein tyrosine phosphatase, receptor-type, zeta polypeptide 1 (PTPRZ1) mRNA |
| 3315 | 19488 | 29506 | 3.8 | 5.3E-01 | AF087658.1 | NT | Homo sapiens secreted C-type lectin precursor (LSC1) gene, complete cds |
| 4327 | 17470 | | 1.2 | 5.3E-01 | U39887.1 | NT | Mycoplasma genitalium section 9 of 51 of the complete genome |
| 5574 | 18770 | 31813 | 1.55 | 5.3E-01 | AI820921.1 | EST_HUMAN | zu42h12.y5 Soares ovary tumor NHOT Homo sapiens cDNA clone IMAGE:740711 5' |
| 5574 | 18770 | 31814 | 1.55 | 5.3E-01 | AI820921.1 | EST_HUMAN | zu42h12.y5 Soares ovary tumor NHOT Homo sapiens cDNA clone IMAGE:740711 5' |
| 5571 | 18805 | 32150 | 0.95 | 5.3E-01 | AA193672.1 | EST_HUMAN | zr42g09.r1 Soares_NHMPU_S1 Homo sapiens cDNA clone IMAGE:866112 5' |
| 5571 | 18805 | 32151 | 0.95 | 5.3E-01 | AA193672.1 | EST_HUMAN | zr42g09.r1 Soares_NHMPU_S1 Homo sapiens cDNA clone IMAGE:866112 5' |
| 5782 | 18954 | 32257 | 2.32 | 5.3E-01 | BE645620.1 | EST_HUMAN | 7e73c12.x1 NCL_CGAP_P128 Homo sapiens cDNA clone IMAGE:3288118 3' similar to gb:J02783 PROTEIN DISULFIDE ISOMERASE PRECURSOR (HUMAN); |
| 5782 | 18954 | 32258 | 2.32 | 5.3E-01 | BE645620.1 | EST_HUMAN | 7e73c12.x1 NCL_CGAP_P128 Homo sapiens cDNA clone IMAGE:3288118 3' similar to gb:J02783 PROTEIN DISULFIDE ISOMERASE PRECURSOR (HUMAN); |
| 9105 | 22184 | | 1.58 | 5.3E-01 | L01950.2 | NT | Roridula gorgonias ribulose 1,5-bisphosphate carboxylase (rbcl) gene, partial cds; chloroplast gene for chloroplast product |
| 9156 | 22234 | 35779 | 0.76 | 5.3E-01 | BF433958.1 | EST_HUMAN | 7a71c12.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE: 3' similar to contains element MER29 repetitive element; |
| 9156 | 22234 | 35780 | 0.76 | 5.3E-01 | BF433958.1 | EST_HUMAN | 7a71c12.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE: 3' similar to contains element MER29 repetitive element; |
| 10418 | 23451 | 37056 | 0.65 | 5.3E-01 | AI854210.1 | EST_HUMAN | w384b02.x1 NCL_CGAP_Mel15 Homo sapiens cDNA clone IMAGE:2551275 3' similar to SW/COXA_HUMAN P20874 CYTOCHROME C OXIDASE POLYPEPTIDE VA PRECURSOR; |
| 11857 | 24845 | 38542 | 5.63 | 5.3E-01 | BE566281.1 | EST_HUMAN | 60133887.F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3682168 5' |
| 12146 | 25958 | | 1.73 | 5.3E-01 | AA816053.1 | EST_HUMAN | qq30e05.s1 NCL_CGAP_B17 Homo sapiens cDNA clone IMAGE:1441376 3' similar to gb:J02811 APOLIPROTEIN D PRECURSOR (HUMAN); |
| 639 | 14017 | 27072 | 20.65 | 5.2E-01 | L20770.1 | NT | Drosophila melanogaster helix-loop-helix mRNA, complete cds |
| 1180 | 14352 | 27410 | 7.57 | 5.2E-01 | Q9WV30 | SWISSPROT | NUCLEAR FACTOR OF ACTIVATED T CELLS 5 (T CELL TRANSCRIPTION FACTOR NFAT5) (NF-AT5) |
| 1218 | 14379 | 27438 | 3.05 | 5.2E-01 | AF224492.1 | NT | (REL DOMAIN-CONTAINING TRANSCRIPTION FACTOR NFAT6) |
| 1835 | 15078 | | 3.88 | 5.2E-01 | AI163285.2 | NT | Homo sapiens phospholipid scramblase 1 gene, complete cds |

Page 53 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 2213 | 15347 | 28476 | 2.86 | 5.2E-01 | AB018283.2 | NT | Homo sapiens mRNA for KIAA0740 protein, partial cds |
| 3189 | 16364 | 28369 | 2.1 | 5.2E-01 | U65942.1 | NT | Chlamydomonas abortus strain S26/3 POMP90A and POMP90A precursor, genes, complete cds |
| 3309 | 16433 | | 1.06 | 5.2E-01 | D79443.1 | NT | Azotobacter vinelandii lcd gene for isocitrate dehydrogenase, complete cds |
| 3491 | 16558 | | 1.81 | 5.2E-01 | AL116780.1 | NT | Botrytis cinerea strain T4 cDNA library under conditions of nitrogen deprivation |
| 3630 | 16595 | 20706 | 2.01 | 5.2E-01 | AA984165.1 | EST_HUMAN | am77605.s1 Stragelene schizo brain S11 Homo sapiens cDNA clone IMAGE:1016504 3' |
| 3722 | 16883 | | 0.77 | 5.2E-01 | AF020269.1 | NT | Medicago sativa chloroplast malate dehydrogenase precursor (p1mdh) mRNA, nuclear gene encoding chloroplast protein, complete cds |
| 3724 | 16885 | 28891 | 0.87 | 5.2E-01 | U82671.2 | NT | Homo sapiens chromosome Xq28 melanoma antigen family A2a (MAGEA2A), melanoma antigen family A12 (MAGEA12), melanoma antigen family A2b (MAGEA2B), melanoma antigen family A3 (MAGEA3), calretinin (CALT), NAD(P)H dehydrogenase-like protein (NSDHL), and L1> |
| 4729 | 17664 | 30846 | 0.81 | 5.2E-01 | 6752947 | NT | Mus musculus acetylcholine receptor beta (Acbt), mRNA |
| 5770 | 18552 | 32263 | 0.92 | 5.2E-01 | AA284261.1 | EST_HUMAN | zc44d09.T7 Soares, senescent, fibroblasts, NBH5F Homo sapiens cDNA clone IMAGE:325169 3' |
| 8932 | 25882 | 36562 | 0.87 | 5.2E-01 | X02218.1 | NT | Chicken duplicated genes for histone H2A, H4 and a histone H3 gene |
| 9932 | 25882 | 36563 | 0.87 | 5.2E-01 | X02218.1 | NT | Chicken duplicated genes for histone H2A, H4 and a histone H3 gene |
| 10136 | 23174 | 36772 | 0.49 | 5.2E-01 | AA194518.1 | EST_HUMAN | zq05b09.r1 Stragelene muscle 537209 Homo sapiens cDNA clone IMAGE:628793 5' |
| 10233 | 23268 | 36858 | 1.32 | 5.2E-01 | AF143952.2 | NT | Homo sapiens PELOTA (PELOTA) gene, complete cds |
| 13128 | 25736 | | 4.83 | 5.2E-01 | P18516 | SWISSPROT | RETINOIC ACID RECEPTOR GAMMA (RAR-GAMMA) (RETINOIC ACID RECEPTOR DELTA) (RAR-DELTA) |
| 632 | 13617 | 26841 | 2.5 | 5.1E-01 | M58509.1 | NT | Human adrenodoxin reductase gene, exons 3 to 12 |
| 665 | 13651 | 26878 | 4.57 | 5.1E-01 | AJ233944.1 | NT | Polyangium vitellinum (strain P1 vt1) 16S rRNA gene |
| 665 | 13651 | 26879 | 4.57 | 5.1E-01 | AJ233944.1 | NT | Polyangium vitellinum (strain P1 vt1) 16S rRNA gene |
| 1694 | 14936 | | 1.02 | 5.1E-01 | X87685.1 | NT | R.norvegicus mRNA for mammalian fusca protein |
| 4188 | 17338 | 30331 | 3.87 | 5.1E-01 | AI658495.1 | EST_HUMAN | w39b12.x1 NCL CGAP_U1 Homo sapiens cDNA clone IMAGE:2427263 3' |
| 4303 | 17446 | 30432 | 2.89 | 5.1E-01 | P96380 | SWISSPROT | TRANSCRIPTION-REPAIR COUPLING FACTOR (TRCF) |
| 5179 | 18301 | | 0.8 | 5.1E-01 | BE091766.1 | EST_HUMAN | IL2-BT0731-250400-077-G08 BT0731 Homo sapiens cDNA |
| 6352 | 18522 | 32879 | 1 | 5.1E-01 | BE541068.1 | EST_HUMAN | 601063909F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3450000 5' |
| 6406 | 18575 | | 0.9 | 5.1E-01 | AV712326.1 | EST_HUMAN | AV712326 DCA Homo sapiens cDNA clone DCAAU07 5' |
| 7057 | 20110 | 33528 | 1.35 | 5.1E-01 | R80873.1 | EST_HUMAN | y94a09.s1 Soares placenta Nib2HP Homo sapiens cDNA clone IMAGE:146872 3' |
| 8770 | 21849 | 35369 | 0.84 | 5.1E-01 | AW606881.1 | EST_HUMAN | QV4-ST0023-160400-172-e01 ST0023 Homo sapiens cDNA |
| 8770 | 21849 | 35390 | 0.84 | 5.1E-01 | AW606881.1 | EST_HUMAN | QV4-ST0023-160400-172-e01 ST0023 Homo sapiens cDNA |
| 9886 | 22828 | 36510 | 4.65 | 5.1E-01 | J05412.1 | NT | Human regenerating protein (reg) gene, complete cds |
| 9886 | 22828 | 36513 | 3.95 | 5.1E-01 | W22302.1 | EST_HUMAN | 66B1 Human retina cDNA Tsp509-cleaved sublibrary Homo sapiens cDNA hot directional |
| 10363 | 23368 | 37009 | 0.99 | 5.1E-01 | M94578.1 | NT | Human carboxyl ester lipase (CEL) gene, complete cds |
| 12368 | 25874 | | 3.48 | 5.1E-01 | BF030207.1 | EST_HUMAN | 60165683F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3626767 5' |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 12634 | 25427 | | 1.31 | 5.1E-01 | BF439982.1 | EST_HUMAN | nc51110.x1 NCI_CGAP_Brn23 Homo sapiens cDNA clone IMAGE:3408218 3' similar to contains element TAR1 repetitive element |
| 2203 | 15338 | 28484 | 1.65 | 6.0E-01 | 4885552 | NT | Homo sapiens postmitotic segregation Increased 2-like 9 (PMS2L9), mRNA |
| 2203 | 15338 | 28465 | 1.65 | 6.0E-01 | 4885552 | NT | Homo sapiens postmitotic segregation Increased 2-like 9 (PMS2L9), mRNA |
| | | | | | | | Buchnera aphidicola genomic fragment containing (chaperone Hsp60) groEL, DNA biosynthesis initiating protein (dnaA), ATP operon (atpCDGAH-FEB), and putative chromosome replication protein (gidA) genes, complete cds; and termination factor Rho (rho) gene> |
| 2211 | 15345 | 28472 | 2.09 | 5.0E-01 | AF008210.1 | NT | Buchnera aphidicola genomic fragment containing (chaperone Hsp60) groEL, DNA biosynthesis initiating protein (dnaA), ATP operon (atpCDGAH-FEB), and putative chromosome replication protein (gidA) genes, complete cds; and termination factor Rho (rho) gene> |
| 2211 | 15345 | 28473 | 2.09 | 5.0E-01 | AF008210.1 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 33 |
| 2231 | 15365 | | 1.56 | 5.0E-01 | AL161533.2 | NT | Mus musculus anti-DNA immunoglobulin light chain Igm mRNA, antibody 363p.138, partial cds |
| 3842 | 17001 | 30004 | 0.86 | 6.0E-01 | U55574.1 | NT | Rattus norvegicus jagged protein mRNA, complete cds |
| 3934 | 17093 | 30091 | 0.93 | 5.0E-01 | L39483.1 | NT | Homo sapiens mRNA for KIAA1184 protein, partial cds |
| 3977 | 17134 | 30137 | 2.67 | 5.0E-01 | AB033010.1 | NT | Homo sapiens mRNA for KIAA1184 protein, partial cds |
| 6782 | 19937 | | 0.82 | 5.0E-01 | BF576199.1 | EST_HUMAN | 602132642F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4271839 5' |
| 7842 | 20897 | 34398 | 0.84 | 5.0E-01 | AL161549.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 49 |
| 7842 | 20897 | 34399 | 0.84 | 5.0E-01 | AL161549.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 49 |
| 8727 | 21807 | | 1.63 | 6.0E-01 | M92304.1 | NT | Xenopus laevis smooth muscle beta-tropomyosin mRNA, complete cds |
| 8870 | 21949 | 35484 | 0.66 | 6.0E-01 | BF107848.1 | EST_HUMAN | 601823860R1 NIH_MGC_79 Homo sapiens cDNA clone IMAGE:4043485 3' |
| 9637 | 21100 | 34613 | 2.13 | 5.0E-01 | BF317212.1 | EST_HUMAN | 601903871F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4136632 5' |
| | | | | | | | (GLYCOGEN DEBRANCHING ENZYME (GLYCOGEN DEBRANCHER) [INCLUDES: 4-ALPHA-GLUCANOTRANSFERASE (OLIGO-1,4-1,4-GLUCAN TRANSFERASE); AMYLO-1,6-GLUCOSIDASE (DEXTRIN 6-ALPHA-D-GLUCOSIDASE)]) |
| 9824 | 22884 | 38446 | 1.47 | 6.0E-01 | P35573 | SWISSPROT | GLYCOGEN DEBRANCHING ENZYME (GLYCOGEN DEBRANCHER) [INCLUDES: 4-ALPHA-GLUCANOTRANSFERASE (OLIGO-1,4-1,4-GLUCAN TRANSFERASE); AMYLO-1,6-GLUCOSIDASE (DEXTRIN 6-ALPHA-D-GLUCOSIDASE)] |
| 9824 | 22864 | 38446 | 1.47 | 6.0E-01 | P35573 | SWISSPROT | GLYCOGEN DEBRANCHING ENZYME (GLYCOGEN DEBRANCHER) [INCLUDES: 4-ALPHA-GLUCANOTRANSFERASE (OLIGO-1,4-1,4-GLUCAN TRANSFERASE); AMYLO-1,6-GLUCOSIDASE (DEXTRIN 6-ALPHA-D-GLUCOSIDASE)] |
| 10802 | 23637 | | 1.23 | 5.0E-01 | BE869218.1 | EST_HUMAN | 601445024F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3840438 5' |
| 12307 | 25225 | | 3.64 | 5.0E-01 | AF029215.1 | NT | Mus musculus MRC OX-2 antigen homolog gene, exons 2-5, and complete cds |
| 13093 | 25713 | | 2.25 | 6.0E-01 | AL163302.2 | NT | Homo sapiens chromosome 21 segment HS21C102 |
| 13109 | 25724 | | 4.71 | 6.0E-01 | O13961 | SWISSPROT | NUCLEAR ENVELOPE PROTEIN CUT11 |
| 812 | 13891 | 27045 | 1.83 | 4.9E-01 | BF571462.1 | EST_HUMAN | 602076849F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:4243880 5' |
| 1692 | 14844 | 27828 | 1.08 | 4.9E-01 | AJ243955.1 | NT | Xenopus laevis mRNA for c-Jun protein, 1978 BP |
| 1655 | 15098 | 28108 | 1.34 | 4.9E-01 | U40969.1 | NT | Cavia porcellus pulmonary surfactant protein A (SP-A) mRNA, complete cds |
| 6522 | 18719 | 31735 | 1.17 | 4.9E-01 | Q61554 | SWISSPROT | FIBRILLIN 1 PRECURSOR |

Page 55 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8161 | 19337 | 32682 | 2.67 | 4.9E-01 | AF020931.1 | NT | Homo sapiens diacylglycerol kinase 3 (DAGK3) gene, exon 10 |
| 8161 | 19337 | 32683 | 2.67 | 4.9E-01 | AF020931.1 | NT | Homo sapiens diacylglycerol kinase 3 (DAGK3) gene, exon 10 |
| 7610 | 20690 | 34156 | 1.81 | 4.9E-01 | AB040051.1 | NT | Oryza sativa subsp. japonica rEF-G mRNA for mitochondrial elongation factor G, complete cds |
| 7882 | 20934 | 34439 | 0.86 | 4.9E-01 | Q10606 | SWISSPROT | PUTATIVE UNDECAPRENYL-PHOSPHATE ALPHA-N-ACETYLGLUCOSAMINYLTRANSFERASE |
| 7882 | 20934 | 34440 | 0.86 | 4.9E-01 | Q10606 | SWISSPROT | PUTATIVE UNDECAPRENYL-PHOSPHATE ALPHA-N-ACETYLGLUCOSAMINYLTRANSFERASE |
| 9190 | 22268 | | 1.96 | 4.9E-01 | BF200704.1 | EST_HUMAN | 601874984F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4102503 5' |
| 9889 | 22484 | 36028 | 0.96 | 4.9E-01 | AW339805.1 | EST_HUMAN | hc80c02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2907286 3' similar to TR:065714 |
| 9488 | 26228 | | 2.2 | 4.9E-01 | 10948863 | NT | O65714 HERC2.1 |
| 10624 | 23559 | 37188 | 1.05 | 4.9E-01 | AF053980.1 | NT | Mus musculus uno13 homolog (C. elegans) 1 (Uno13h1), mRNA |
| 12197 | 25154 | | 2.81 | 4.9E-01 | AF176912.1 | NT | Mus musculus adenyl cyclase 1 (Adcy1) cDNA, partial cds |
| 13085 | 26174 | | 4.94 | 4.9E-01 | AA813582.1 | EST_HUMAN | Homo sapiens neurotrophin-1/B-cell stimulating factor-3 gene, complete cds |
| 13084 | 25714 | 31939 | 1.69 | 4.9E-01 | AL168301.2 | NT | hg22et11.s1 NCL_CGAP_Co10 Homo sapiens cDNA clone IMAGE:1144652 3' |
| 13181 | 25708 | | 1.27 | 4.9E-01 | 11431438 | NT | Homo sapiens chromosome 21 segment HS21C101 |
| 4462 | 17592 | | 0.69 | 4.9E-01 | 4504850 | NT | Homo sapiens eukaryotic translation initiation factor 4 gamma, 1 (EIF4G1), mRNA |
| 5624 | 18818 | 31892 | 9.66 | 4.8E-01 | J02987.1 | NT | Homo sapiens potassium channel, subfamily K, member 5 (TASK-2) (KONK6) mRNA, end translated products |
| 8617 | 19970 | 33378 | 0.69 | 4.8E-01 | U92892.1 | NT | Saccharomyces cerevisiae sporulation protein (SPO11) gene required for meiotic recombination, complete cds |
| 8627 | 19980 | | 4.18 | 4.8E-01 | AA659878.1 | EST_HUMAN | Mus musculus slow skeletal muscle troponin T (Tnni1) gene, complete cds |
| 7469 | 20544 | | 1.83 | 4.8E-01 | 5031650 | NT | nu85f09.s1 NCL_CGAP_Av1 Homo sapiens cDNA clone IMAGE:1217513 |
| 7846 | 20900 | 34403 | 1.06 | 4.8E-01 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 7838 | 20989 | 34497 | 3.59 | 4.8E-01 | AL161492.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 7838 | 20988 | 34498 | 3.59 | 4.8E-01 | AL161492.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 4 |
| 8089 | 21171 | 34686 | 1.81 | 4.8E-01 | AI820744.1 | EST_HUMAN | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 4 |
| 8446 | 22582 | | 1.05 | 4.8E-01 | BE155148.1 | EST_HUMAN | yj77110.y5 Soares breast 2Nbl-Bst Homo sapiens cDNA clone IMAGE:154795 5' similar to contains element |
| 10212 | 23248 | | 0.55 | 4.8E-01 | BF568633.1 | EST_HUMAN | MER0 repetitive element |
| 10966 | 24047 | | 1.9 | 4.8E-01 | X93602.1 | NT | PM1-HT0390-201269-004-b04 HT0390 Homo sapiens cDNA |
| 12279 | 25209 | | 1.56 | 4.8E-01 | AL163227.2 | NT | 602184267F1 NIH_MGC_42 Homo sapiens cDNA clone IMAGE:4300048 6' |
| 12509 | 25918 | | 5.78 | 4.8E-01 | AF227565.1 | NT | S. cerevisiae ORF's from chromosome X |
| 3142 | 16318 | | 0.59 | 4.7E-01 | AF192387.1 | NT | Homo sapiens chromosome 21 segment HS21C027 |
| 6844 | 19803 | 33190 | 8.07 | 4.7E-01 | BF217173.1 | EST_HUMAN | Trypanosoma cruzi transposon VJP II SIRE repeat region |
| 7186 | 20051 | 33461 | 0.84 | 4.7E-01 | AI204374.1 | EST_HUMAN | Felis catus feline leukemia virus subgroup C receptor (FLVCR1) mRNA, complete cds |
| | | | | | | | 601883880F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4096387 5' |
| | | | | | | | qf72a09.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1755644 3' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8049 | 21132 | 34852 | 0.76 | 4.7E-01 | T11414.1 | EST_HUMAN | hbc811 Human pancreatic islet Homo sapiens cDNA clone hbc811 5'end |
| 8049 | 21132 | 34653 | 0.76 | 4.7E-01 | T11414.1 | EST_HUMAN | hbc811 Human pancreatic islet Homo sapiens cDNA clone hbc811 5'end |
| 9276 | 22352 | 35904 | 0.81 | 4.7E-01 | 6981501 | NT | Rattus norvegicus Spermine binding protein (Sbp), mRNA |
| 11084 | 24158 | | 4.37 | 4.7E-01 | AF102673.1 | NT | Influenza A virus isolate hk57697 hemagglutinin (HA) gene, partial cds |
| 11340 | 24403 | 38052 | 1.94 | 4.7E-01 | U41068.1 | NT | Human collagen alpha2(XI) (COL11A2) gene, exons 6 through 10, and partial cds |
| 11658 | 24737 | 38428 | 1.45 | 4.7E-01 | AW889448.1 | EST_HUMAN | RC6-NT0029-240400-011-E08 NT0029 Homo sapiens cDNA |
| 12401 | 25281 | | 1.84 | 4.7E-01 | BE887763.1 | EST_HUMAN | 601511333F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3912488 5' |
| 12529 | 26381 | | 1.25 | 4.7E-01 | AW341561.1 | EST_HUMAN | hd11c08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2809198 3' |
| 3337 | 16997 | 29999 | 1.62 | 4.6E-01 | BF893300.1 | EST_HUMAN | 602081103F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4245481 5' |
| 3837 | 16997 | 30000 | 1.62 | 4.6E-01 | BF893300.1 | EST_HUMAN | 602081103F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4245481 5' |
| 5535 | 18732 | 31747 | 0.93 | 4.6E-01 | BF313593.1 | EST_HUMAN | 601900234F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4128472 5' |
| 5535 | 18732 | 31748 | 0.93 | 4.6E-01 | BF313593.1 | EST_HUMAN | 601900234F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4128472 5' |
| 5588 | 18783 | 31828 | 3.52 | 4.6E-01 | Q90643 | SWISSPROT | INTERFERON REGULATORY FACTOR 3 (IRF-3) |
| 5588 | 18783 | 31829 | 3.52 | 4.6E-01 | Q90643 | SWISSPROT | INTERFERON REGULATORY FACTOR 3 (IRF-3) |
| 5663 | 18857 | 32140 | 1.84 | 4.6E-01 | BE734781.1 | EST_HUMAN | 601568755F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3943637 5' |
| 5677 | 18871 | 32157 | | | | EST_HUMAN | qh59h02.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1849011 3' similar to |
| 5677 | 18871 | | 3.62 | 4.6E-01 | A1247678.1 | EST_HUMAN | qh59h02.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1849011 3' similar to |
| 5677 | 18871 | 32158 | 3.62 | 4.6E-01 | A1247678.1 | EST_HUMAN | qh59h02.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1849011 3' similar to |
| 5885 | 18879 | 32169 | 1.44 | 4.6E-01 | P20050 | SWISSPROT | MEIOSIS SPECIFIC PROTEIN HOP1 |
| 6763 | 18955 | | 0.85 | 4.6E-01 | AF212124.1 | NT | Anolis schwartzi cytochrome b gene, partial cds; mitochondrial gene for mitochondrial product |
| 5850 | 19040 | | 0.9 | 4.6E-01 | BE817247.1 | EST_HUMAN | PMC-BN0260-120600-001-F07 BN0260 Homo sapiens cDNA |
| 6386 | 19555 | 32914 | 0.82 | 4.6E-01 | AE000894.1 | NT | Methanobacterium thermoautotrophicum from bases 1165761 to 1176238 (section 100 of 148) of the complete genome |
| 6908 | 20221 | 33849 | 2.39 | 4.6E-01 | U62332.1 | NT | Emricella nidulans NEMPA (nemrA) gene, mitochondrial gene encoding putative mitochondrial protein, complete cds |
| 6908 | 20221 | 33850 | 2.39 | 4.6E-01 | U62332.1 | NT | Emricella nidulans NEMPA (nemrA) gene, mitochondrial gene encoding putative mitochondrial protein, complete cds |
| 7378 | 26943 | 33920 | 0.66 | 4.6E-01 | L07320.1 | NT | Murine cytomegalovirus α 1 protein gene, complete cds |
| 7906 | 20958 | 34464 | 0.78 | 4.6E-01 | AA493577.1 | EST_HUMAN | rh04h05. α 1 NCJ_CGAP_Thy1 Homo sapiens cDNA clone IMAGE:943363 similar to contains Alu repetitive element; contains element L1 repetitive element; |
| 8515 | 21698 | 35131 | 14.55 | 4.6E-01 | BF697999.1 | EST_HUMAN | 602130553F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4287828 5' |
| 8946 | 22025 | 35565 | 0.54 | 4.6E-01 | AA932237.1 | EST_HUMAN | co76b08. α 1 NCJ_CGAP_Kid6 Homo sapiens cDNA clone IMAGE:1572087 3' similar to gbM36341 ADP-RIBOSYLATION FACTOR 4 (HUMAN); |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8948 | 22025 | 35568 | 0.54 | 4.8E-01 | AA92237.1 | EST_HUMAN | cc78b08.s1 NCL_CGAP_K45 Homo sapiens cDNA clone IMAGE:1572087 3' similar to gb:M36341 ADP- RIBOSYLATION FACTOR 4 (HUMAN); |
| 9501 | 22557 | 36120 | 0.93 | 4.6E-01 | P55202 | SWISSPROT | ATRIAL NATRIURETIC PEPTIDE RECEPTOR B PRECURSOR (ANP-B) (ANPRB) (GC-B) (GUANYLATE CYCLASE) |
| 9501 | 22557 | 36121 | 0.93 | 4.6E-01 | P55202 | SWISSPROT | ATRIAL NATRIURETIC PEPTIDE RECEPTOR B PRECURSOR (ANP-B) (ANPRB) (GC-B) (GUANYLATE CYCLASE) |
| 9868 | 22806 | 36490 | 0.52 | 4.8E-01 | AF162283.1 | NT | Glycine max acetyl-CoA carboxylase (accB-1) gene, complete cds; nuclear gene for chloroplast product |
| 9868 | 22806 | 36491 | 0.52 | 4.8E-01 | AF162283.1 | NT | Glycine max acetyl-CoA carboxylase (accB-1) gene, complete cds; nuclear gene for chloroplast product |
| 10181 | 23218 | 36809 | 1.15 | 4.6E-01 | A1915634.1 | EST_HUMAN | wg73a12.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2370789 3' |
| 10181 | 23218 | 36810 | 1.15 | 4.6E-01 | A1915634.1 | EST_HUMAN | wg73a12.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2370789 3' |
| 11238 | 24307 | 37955 | 2.31 | 4.6E-01 | P98763 | SWISSPROT | PUTATIVE VITELLOGENIN RECEPTOR PRECURSOR (ML) |
| 11248 | 24317 | 37956 | 5.08 | 4.6E-01 | BE185448.1 | EST_HUMAN | IL5-HT0730-100500-075-g05 HT0730 Homo sapiens cDNA |
| 11248 | 24317 | 37957 | 5.06 | 4.6E-01 | BE185449.1 | EST_HUMAN | IL5-HT0730-100500-075-g05 HT0730 Homo sapiens cDNA |
| 11760 | 23946 | 37573 | 4.3 | 4.6E-01 | AF019369.1 | NT | Human thiopurine methyltransferase (TPMT) gene, exon 10 and complete cds |
| 11760 | 23946 | 37574 | 4.3 | 4.6E-01 | AF019369.1 | NT | Human thiopurine methyltransferase (TPMT) gene, exon 10 and complete cds |
| 1960 | 18103 | 28203 | 1.15 | 4.5E-01 | AE001931.1 | NT | Delnocioccus radiodurans R1 section 88 of 229 of the complete chromosome 1 |
| 1960 | 18103 | 28204 | 1.15 | 4.5E-01 | AE001931.1 | NT | Delnocioccus radiodurans R1 section 88 of 229 of the complete chromosome 1 |
| 2933 | 18110 | 29124 | 4.83 | 4.5E-01 | AA677086.1 | EST_HUMAN | zf5d02.s1 Soares_fetal_liver_spleen_1NFSL_S1 Homo sapiens cDNA clone IMAGE:454178 3' |
| 3380 | 16552 | 29565 | 0.66 | 4.5E-01 | AW083761.1 | EST_HUMAN | xc25c08.x1 NCL_CGAP_Cot19 Homo sapiens cDNA clone IMAGE:2585290 3' similar to gb:L07807 DYNAMIN-1 (HUMAN); |
| 3380 | 16552 | 29566 | 0.68 | 4.5E-01 | AW083761.1 | EST_HUMAN | xc25c08.x1 NCL_CGAP_Cot19 Homo sapiens cDNA clone IMAGE:2585290 3' similar to gb:L07807 DYNAMIN-1 (HUMAN); |
| 3383 | 16563 | 29378 | 4.46 | 4.5E-01 | Q05793 | SWISSPROT | BASEMENT MEMBRANE-SPECIFIC HEPARAN SULFATE PROTEOGLYCAN CORE PROTEIN |
| 3485 | 16932 | 29651 | 1.61 | 4.5E-01 | AF126378.1 | NT | PRECURSOR (HSPG) (PERLECAN) (PLC) |
| 4139 | 17291 | 30329 | 1.18 | 4.5E-01 | Q28247 | SWISSPROT | Mus musculus DNA polymerase epsilon catalytic subunit (Pde) gene, exons 2 through 12 |
| 4186 | 17336 | 30329 | 1.02 | 4.5E-01 | A1708908.1 | EST_HUMAN | COLLAGEN ALPHA 5(IV) CHAIN |
| 4292 | 18478 | 31161 | 4.71 | 4.5E-01 | AW873495.1 | EST_HUMAN | ase6609.x1 Barstead aceta HPLRB6 Homo sapiens cDNA clone IMAGE:2353480 3' |
| 5058 | 18186 | 31161 | 1.18 | 4.5E-01 | BE963445.2 | EST_HUMAN | hce60g02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:3041810 3' |
| 5686 | 19860 | 32146 | 1.57 | 4.5E-01 | AW608844.1 | EST_HUMAN | 60767225R1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3688023 3' |
| 6740 | 19896 | 34120 | 1.38 | 4.5E-01 | Q00956 | SWISSPROT | QV2-PT0012-140100-031-c09 P10012 Homo sapiens cDNA COAT PROTEIN |
| 7571 | 20943 | 34120 | 0.91 | 4.5E-01 | M37036.1 | NT | Rat nuclear proteins B23.1 and B23.2 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 7785 | 20841 | 34333 | 2.39 | 4.5E-01 | AI658949.1 | EST_HUMAN | W32602.x1 NCI CGAP_U11 Homo sapiens cDNA clone IMAGE:2426618 3' similar to TR:Q92923 Q92923 |
| 8502 | 21593 | | 1.11 | 4.5E-01 | M32661.1 | NT | SW/ISNF COMPLEX 170 KDA SUBUNIT.1 |
| 8598 | 21679 | 35217 | 2.87 | 4.5E-01 | AI648596.1 | EST_HUMAN | D melanogaster Shaw2 protein mRNA, complete cds |
| | | | | | | | tz66g11.x1 NCI CGAP_Ov85 Homo sapiens cDNA clone IMAGE:2292844 3' |
| 8756 | 21835 | 35376 | 0.85 | 4.5E-01 | Q52728 | SWISSPROT | POLY-BETA-HYDROXYBUTYRATE POLYMERASE (POLY(3-HYDROXYBUTYRATE) POLYMERASE) (PHB POLYMERASE) (PHB SYNTHASE) (POLY(3-HYDROXYALKANOATE) POLYMERASE) (PHA POLYMERASE) (PHA SYNTHASE) (POLYHYDROXYALKANOIC ACID SYNTHASE) |
| 8981 | 22050 | | 2.38 | 4.5E-01 | 11444788 | NT | Homo sapiens hypothetical protein DKFZp547G183 (DKFZp547G183), mRNA |
| 9200 | 22278 | 35817 | 0.86 | 4.5E-01 | AE000218.1 | NT | Escherichia coli K-12 MG1655 section 108 of 400 of the complete genome |
| 10145 | 23183 | | 0.98 | 4.5E-01 | 9630816 | NT | Bombayx mont nuclear polyhedrosis virus, complete genome |
| 10713 | 23746 | 37352 | 25.59 | 4.5E-01 | M86006.1 | EST_HUMAN | EST02531 Fetal brain, Striatum (cat#383206) Homo sapiens cDNA clone HFBCY17 |
| 10713 | 23746 | 37353 | 25.59 | 4.5E-01 | M86006.1 | EST_HUMAN | EST02531 Fetal brain, Striatum (cat#383206) Homo sapiens cDNA clone HFBCY17 |
| | | | | | | | xc14h01.x1 NCI CGAP_U13 Homo sapiens cDNA clone IMAGE:2703985 3' similar to SW:INT6_MOUSE |
| 11104 | 24176 | 37812 | 2.52 | 4.5E-01 | AW591271.1 | EST_HUMAN | Q64252 VIRAL INTEGRATION SITE PROTEIN INT-6. [1] |
| 11226 | 24294 | 37835 | 2.16 | 4.5E-01 | 11430789 | NT | Homo sapiens cadherin 3, P-cadherin (placental) (CDH3), mRNA |
| 11530 | 24586 | | 1.3 | 4.5E-01 | AV718382.1 | EST_HUMAN | AV718382 GLC Homo sapiens cDNA clone GLCCE12 5' |
| 12164 | 26162 | | 5.58 | 4.5E-01 | BE871491.1 | EST_HUMAN | 601449201F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3852861 5' |
| 12895 | 26592 | | 1.2 | 4.5E-01 | BF337531.1 | EST_HUMAN | 602035275F1 NCI CGAP_Bim64 Homo sapiens cDNA clone IMAGE:4183280 5' |
| 12970 | 26630 | | 12.42 | 4.5E-01 | 11422099 | NT | Homo sapiens testis-specific kinase 2 (TESK2), mRNA |
| 2094 | 16234 | | 1.11 | 4.4E-01 | 6880503 | NT | Mus musculus integral membrane-associated protein 1 (linap1), mRNA |
| | | | | | | | VASCULAR ENDOTHELIAL GROWTH FACTOR B PRECURSOR (VEGF-B) (VEGF RELATED FACTOR) |
| 2462 | 16589 | 28715 | 4.16 | 4.4E-01 | P49785 | SWISSPROT | |
| 3390 | 16560 | 28575 | 1.54 | 4.4E-01 | AF058790.1 | NT | Rattus norvegicus SynGAP-b mRNA, complete cds |
| 3390 | 16560 | 28576 | 1.54 | 4.4E-01 | AF058790.1 | NT | Rattus norvegicus SynGAP-b mRNA, complete cds |
| 3395 | 16585 | 28580 | 2.12 | 4.4E-01 | BF056726.1 | EST_HUMAN | 7191d02.v1 NCI CGAP_Bim64 Homo sapiens cDNA clone IMAGE:3353795 5' |
| 4349 | 17492 | | 1.35 | 4.4E-01 | BE378707.1 | EST_HUMAN | 601237139F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3609393 5' |
| 5536 | 18733 | 31749 | 1.31 | 4.4E-01 | P04929 | SWISSPROT | HISTIDINE-RICH GLYCOPROTEIN PRECURSOR |
| 5536 | 18733 | 31750 | 1.31 | 4.4E-01 | P04929 | SWISSPROT | HISTIDINE-RICH GLYCOPROTEIN PRECURSOR |
| 5805 | 18995 | 32300 | 1.58 | 4.4E-01 | S65019.1 | NT | mucln [rat, Sprague-Dawley, sulfur-dioxide-treated tracheal epithelium, mRNA Partial, 390 nt] |
| 5823 | 19013 | 32319 | 1.81 | 4.4E-01 | AV720408.1 | EST_HUMAN | AV720408 GLC Homo sapiens cDNA clone GLCSC12 5' |
| | | | | | | | q62h11.x1 NCI CGAP_Bim25 Homo sapiens cDNA clone IMAGE:1661125 3' similar to TR:Q29168 Q29169 |
| 6074 | 19258 | 32584 | 1.12 | 4.4E-01 | AI198413.1 | EST_HUMAN | UNKNOWN PROTEIN ; |

Page 59 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 8074 | 19258 | 32585 | 1.12 | 4.4E-01 | AI08413.1 | EST_HUMAN | q02h1.1 x1 NCL CGAP_Brr25 Homo sapiens cDNA clone IMAGE:1861126 3' similar to TR:Q29168 Q29168 UNKNOWN PROTEIN ; |
| 6370 | 19539 | 32889 | 1.87 | 4.4E-01 | AW080795.1 | EST_HUMAN | xc27608.x1 NCL CGAP_Co18 Homo sapiens cDNA clone IMAGE:2685510 3' similar to TR:Q98164 Q98164 AFLATOXIN B1-ALDEHYDE REDUCTASE ; |
| 8458 | 19925 | | 1.05 | 4.4E-01 | AA776132.1 | EST_HUMAN | ae85d11.s1 Stratiotes schizobryon S11 Homo sapiens cDNA clone IMAGE:870985 3' similar to gb:M16038 TYROSINE-PROTEIN KINASE LYN (HUMAN); |
| 7657 | 20529 | 34104 | 1.14 | 4.4E-01 | AE000571.1 | NT | Helicobacter pylori 26895 section 49 of 134 of the complete genome |
| 8024 | 21107 | | 1.23 | 4.4E-01 | Z11679.1 | NT | S. tuberosum mRNA for induced skolon lip protein (partial) |
| 8862 | 22041 | 35584 | 1.11 | 4.4E-01 | AA056427.1 | EST_HUMAN | 269a03.s1 Stratiotes cdon (#837204) Homo sapiens cDNA clone IMAGE:609839 3' |
| 9352 | 22427 | 35985 | 0.78 | 4.4E-01 | AF112540.1 | NT | HIV-1 isolate 08107v3 from USA, envelope glycoprotein (env) gene, partial cds |
| 9385 | 22460 | 38023 | 0.82 | 4.4E-01 | AW612578.1 | EST_HUMAN | h105608.x1 NCL CGAP_Kd11 Homo sapiens cDNA clone IMAGE:2854222 3' similar to SW_MSH6_HUMAN P92701 DNA MISMATCH REPAIR PROTEIN MSH6 ; |
| 9490 | 22547 | 36110 | 1.13 | 4.4E-01 | O62838 | SWISSPROT | ZINC FINGER X-CHROMOSOMAL PROTEIN |
| 10167 | 23204 | 39788 | 1.95 | 4.4E-01 | AI268650.1 | EST_HUMAN | q03909.x1 NCL CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1910921 3' |
| 10168 | 23205 | | 2.09 | 4.4E-01 | P28922 | SWISSPROT | GLYCOPROTEIN B PRECURSOR (GLYCOPROTEIN 14) |
| 10302 | 23337 | 38942 | 4.94 | 4.4E-01 | P35680 | SWISSPROT | TYROSINE-PROTEIN KINASE RECEPTOR TIE-1 PRECURSOR |
| 10585 | 23820 | 37228 | 1.78 | 4.4E-01 | S78404.1 | NT | beta-HKA-H,K-ATPase beta-subunit [rats, Genomic, 8983 nt, segment 2 of 2] |
| 10595 | 23920 | 37227 | 1.76 | 4.4E-01 | S78404.1 | NT | beta-HKA-H,K-ATPase beta-subunit [rats, Genomic, 8983 nt, segment 2 of 2] |
| 10829 | 23962 | 37485 | 0.48 | 4.4E-01 | P02716 | SWISSPROT | ACETYLCHOLINE RECEPTOR PROTEIN, DELTA CHAIN PRECURSOR |
| 11522 | 24578 | 38256 | 1.84 | 4.4E-01 | 6691408 | NT | Terbrautina retusa mitochondrion, complete genome |
| 12436 | 25308 | 32087 | 4.23 | 4.4E-01 | 6577874 | NT | Mus musculus sodium channel, type X, alpha polypeptide (Scn10a), mRNA |
| 12447 | 26084 | | 13.47 | 4.4E-01 | AL163282.2 | NT | Homo sapiens chromosome 21 segment HS21C082 |
| 13061 | 26689 | | 1.41 | 4.4E-01 | P54725 | SWISSPROT | UV EXCISION REPAIR PROTEIN PROTEIN RAD23 HOMOLOG A (HHR23A) |
| 424 | 13619 | 26859 | 2.42 | 4.3E-01 | AF155218.1 | NT | Callithrix jacchus MW/LW opsin gene, upstream flanking region |
| 424 | 13619 | 26860 | 2.42 | 4.3E-01 | AF155218.1 | NT | Callithrix jacchus MW/LW opsin gene, upstream flanking region |
| 1633 | 14785 | 27871 | 1.11 | 4.3E-01 | AW668550.1 | EST_HUMAN | QV4-SN0024-200400-183-501 SN0024 Homo sapiens cDNA |
| 2935 | 16112 | | 1.34 | 4.3E-01 | AW835289.1 | EST_HUMAN | CM2-DT0003-010200-077-c01 DT0003 Homo sapiens cDNA |
| 3127 | 16303 | 29316 | 0.95 | 4.3E-01 | AW990477.1 | EST_HUMAN | MRC-BN0070-270300-008-g04 BN0070 Homo sapiens cDNA |
| 4526 | 13619 | 26859 | 1.27 | 4.3E-01 | AF155218.1 | NT | Callithrix jacchus MW/LW opsin gene, upstream flanking region |
| 4526 | 13619 | 26860 | 1.27 | 4.3E-01 | AF155218.1 | NT | Callithrix jacchus MW/LW opsin gene, upstream flanking region |
| 5071 | 18198 | | 1.04 | 4.3E-01 | AL161502.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 14 |
| 5220 | 18342 | | 0.94 | 4.3E-01 | 9635250 | NT | Xestia c-nigrum granulovirus, complete genome |
| 5480 | 18679 | 31693 | 0.95 | 4.3E-01 | P48634 | SWISSPROT | LARGE PROLINE-RICH PROTEIN BAT2 (HLA-B-ASSOCIATED TRANSCRIPT 2) |
| 5480 | 18679 | 31694 | 0.95 | 4.3E-01 | P48634 | SWISSPROT | LARGE PROLINE-RICH PROTEIN BAT2 (HLA-B-ASSOCIATED TRANSCRIPT 2) |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6009 | 19194 | 32512 | 1.31 | 4.3E-01 | BE181655.1 | EST_HUMAN | OV1-HIT0638-070500-181-c08 HT0638 Homo sapiens cDNA |
| 6027 | 19210 | 32530 | 1.99 | 4.3E-01 | AF179825.1 | NT | Salmonella enterica serovar typhimurium (SSC186) gene, partial cds |
| 6847 | 20000 | 33408 | 3.1 | 4.3E-01 | AJ001878.1 | NT | Coturnix coturnix japonica ifnG gene |
| 6825 | 20240 | 33675 | 0.67 | 4.3E-01 | AF075629.1 | NT | Equus caballus microsatellite LEX027 |
| 7005 | 20141 | | 0.77 | 4.3E-01 | O33367 | SWISSPROT | DNA GYRASE SUBUNIT B |
| 7588 | 20658 | | 1.28 | 4.3E-01 | BF348001.1 | EST_HUMAN | 602023134FT NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4158296 5' |
| 8622 | 21702 | | 3.15 | 4.3E-01 | U97040.1 | NT | Methanococcus voltae flagellar-related protein C-1 (flaC-fla) genes, complete cds |
| 9455 | 22571 | 36137 | 1.02 | 4.3E-01 | Y14604.1 | NT | Erwinia amylovora rcsV gene |
| 9828 | 22998 | 36556 | 2.36 | 4.3E-01 | AW630048.1 | EST_HUMAN | h174e10.y1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2988554 5' |
| 9828 | 22998 | 36567 | 2.36 | 4.3E-01 | AW630048.1 | EST_HUMAN | h174e10.y1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2988554 5' |
| 10433 | 23458 | 37075 | 0.99 | 4.3E-01 | AW170559.1 | EST_HUMAN | xn83605.x1 Soares_NHCcC_served_tumor Homo sapiens cDNA clone IMAGE:2698400 3' similar to |
| 11172 | 20240 | 33675 | 2.27 | 4.3E-01 | AF075629.1 | NT | TR:000189 000189 MU-ADAPTIN-RELATED PROTEIN 2 ; |
| 13182 | 25754 | | 1.56 | 4.3E-01 | AJ003022.1 | NT | Equus caballus microsatellite LEX027 |
| 1389 | 16036 | 27618 | 1.17 | 4.2E-01 | Q39102 | SWISSPROT | Sireptomyces coelicolor whiH gene |
| 2002 | 15143 | | 1.02 | 4.2E-01 | AA761653.1 | EST_HUMAN | CELL DIVISION PROTEIN FISH HOMOLOG PRECURSOR |
| 3697 | 18518 | 29892 | 4.1 | 4.2E-01 | AE003947.1 | NT | nz24e09.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1288686 3' |
| 3727 | 16898 | 29892 | 1.09 | 4.2E-01 | A1280338.1 | EST_HUMAN | Xyella fastidiosa, section 93 of 229 of the complete genome |
| 3803 | 18477 | | 0.73 | 4.2E-01 | N81203.1 | EST_HUMAN | q194b01.x1 Soares_NHMPu_S1 Homo sapiens cDNA clone IMAGE:1876945 3' |
| 3984 | 17141 | 30146 | 0.74 | 4.2E-01 | AW835527.1 | EST_HUMAN | 788IE1 fetal brain cDNA Homo sapiens cDNA clone 788IE1-K similar to R07879, Z40488 |
| 4819 | 17852 | 30837 | 2.57 | 4.2E-01 | AA534093.1 | EST_HUMAN | QVD-L10015-180200-127-H01 LT0015 Homo sapiens cDNA |
| 4903 | 18033 | 31022 | 3.8 | 4.2E-01 | R13467.1 | EST_HUMAN | η68h01.s1 NCI_CGAP_P10 Homo sapiens cDNA clone IMAGE:987777 similar to gb.M33680 HLA CLASS II HISTOCOMPATIBILITY ANTIGEN, DR-1 BETA CHAIN (HUMAN); |
| 5832 | 19023 | 32330 | 1.42 | 4.2E-01 | BF242055.1 | EST_HUMAN | Y77601.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:28278 5' |
| 5901 | 19090 | 32404 | 1.63 | 4.2E-01 | AW854182.1 | EST_HUMAN | 601879721F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4108493 6' |
| 6334 | 19505 | 32883 | 0.99 | 4.2E-01 | AL163247.2 | NT | RC3-CT0254-060400-028-g04 CT0254 Homo sapiens cDNA |
| 7080 | 20184 | 33608 | 8.72 | 4.2E-01 | AJ158472.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C047 |
| 7080 | 20184 | 33608 | 8.72 | 4.2E-01 | AJ158472.1 | EST_HUMAN | AJ158472 PLAGE2 Homo sapiens cDNA clone PLAGE2000470 3' |
| 7151 | 20839 | 33727 | 3.21 | 4.2E-01 | S82504.1 | NT | AJ158472 PLAGE2 Homo sapiens cDNA clone PLAGE2000470 3' |
| 7242 | 20323 | 33770 | 8.61 | 4.2E-01 | AL161547.2 | NT | Brc1-1 breast cancer gene [feta, WF, spleen, Genomic, 419 nt, segment 2 of 2] |
| 7745 | 20805 | 34294 | 0.81 | 4.2E-01 | AL163262.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 47 |
| 8182 | 21284 | 34787 | 4.01 | 4.2E-01 | AW957448.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C052 |
| 8182 | 21284 | 34787 | 4.01 | 4.2E-01 | AW957448.1 | EST_HUMAN | EST369413 IMAGE resequences, IMAGE Homo sapiens cDNA |
| 8182 | 21284 | 34787 | 4.01 | 4.2E-01 | AW957448.1 | EST_HUMAN | EST369413 IMAGE resequences, IMAGE Homo sapiens cDNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8401 | 21482 | 35010 | 0.72 | 4.2E-01 | 4768039 | NT | Homo sapiens cytochrome c oxidase subunit Vlc (COX6C), nuclear gene encoding mitochondrial protein, mRNA |
| 9511 | 22576 | 36141 | 0.51 | 4.2E-01 | U57431.1 | NT | Human cytomegalovirus early phosphoprotein p50 mRNA, complete cds |
| 9511 | 22576 | 36142 | 0.51 | 4.2E-01 | U57431.1 | NT | Human cytomegalovirus early phosphoprotein p50 mRNA, complete cds |
| 10176 | 23212 | | 0.81 | 4.2E-01 | AA705007.1 | EST_HUMAN | 395501.s1 Soares fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:462649 3' |
| 10714 | 23747 | 37354 | 1.44 | 4.2E-01 | AA705007.1 | EST_HUMAN | MP3-SN0010-280300-103-R07 SN0010 Homo sapiens cDNA |
| 11298 | 24364 | 38005 | 1.43 | 4.2E-01 | AB023489.1 | NT | Onydas latipes OIGC7 mRNA for membrane guanylyl cyclase, complete cds |
| 11678 | 24678 | 38368 | 1.87 | 4.2E-01 | BE960485.2 | EST_HUMAN | 601600352R1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3906086 3' |
| 1118 | 14283 | 27338 | 2.11 | 4.1E-01 | AI905481.1 | EST_HUMAN | RC-BT091-210189-142 BT091 Homo sapiens cDNA |
| 1127 | 14292 | 27347 | 1.46 | 4.1E-01 | AV705243.1 | EST_HUMAN | AV705243 ADB Homo sapiens cDNA clone ADBAHF08 5' |
| 1127 | 14292 | 27348 | 1.46 | 4.1E-01 | AV705243.1 | EST_HUMAN | AV705243 ADB Homo sapiens cDNA clone ADBAHF08 5' |
| 1040 | 14792 | 27877 | 1.77 | 4.1E-01 | AI905949.1 | EST_HUMAN | PM-BT103-270499-684 BT103 Homo sapiens cDNA |
| 2776 | 15890 | 29001 | 1.46 | 4.1E-01 | 7705283 | NT | Homo sapiens anaphase-promoting complex subunit 7 (APC7), mRNA |
| 3006 | 16181 | 29202 | 2.12 | 4.1E-01 | AL181536.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 36 |
| 3006 | 16181 | 29203 | 2.12 | 4.1E-01 | AL181536.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 36 |
| 3375 | 16547 | 29561 | 0.66 | 4.1E-01 | AA006344.1 | EST_HUMAN | g94b08.s1 Soares NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1505943 3' |
| 3871 | 17030 | 30028 | 0.73 | 4.1E-01 | AW991292.1 | EST_HUMAN | EST373384 MAGG resequences, MAGG Homo sapiens cDNA |
| 3871 | 17030 | 30029 | 0.73 | 4.1E-01 | AW991292.1 | EST_HUMAN | EST373384 MAGG resequences, MAGG Homo sapiens cDNA |
| 4389 | 17532 | 30513 | 3.78 | 4.1E-01 | AJ249207.1 | NT | Rhodococcus sp. AD45 isoG, isoH, isoI, isoJ, isoK, isoL, isoM, isoN, isoO and isoP genes |
| 4422 | 17593 | | 0.99 | 4.1E-01 | AA009257.1 | EST_HUMAN | pm33d02.s1 Soares NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1642819 3' |
| 4789 | 17924 | 30912 | 1.36 | 4.1E-01 | AV747880.1 | EST_HUMAN | AV747880 NPC Homo sapiens cDNA clone NPCBDF10 5' |
| 6111 | 19291 | 32826 | 4.84 | 4.1E-01 | BF681389.1 | EST_HUMAN | 60216660F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4297319 5' |
| 6857 | 20010 | 33420 | 0.65 | 4.1E-01 | U02298.1 | NT | Mus musculus NIH 3T3 chemokine ratites (Seyas) gene, complete cds |
| 7580 | 20681 | 34137 | 2.48 | 4.1E-01 | U67535.1 | NT | Methanococcus jannaschii section 77 of 150 of the complete genome |
| 8225 | 21307 | 34827 | 1.39 | 4.1E-01 | BF574604.1 | EST_HUMAN | 602133261F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4288238 5' |
| 9292 | 22398 | 35918 | 1.51 | 4.1E-01 | 6755521 | NT | Mus musculus signaling intermediate in Toll pathway-evolutionarily conserved (Slpcc-pending), mRNA |
| 9765 | 22762 | | 0.75 | 4.1E-01 | AF160597.1 | NT | Voelavo gymnocaudus Vgym580 cytochrome b (cytb) gene, complete cds; mitochondrial gene for mitochondrial product |
| 10470 | 23505 | | 1.50 | 4.1E-01 | AL136076.2 | NT | Campylobacter jejuni NCTC11166 complete genome; segment 3/6 |
| 10622 | 23656 | 37266 | 1.15 | 4.1E-01 | AV849579.1 | EST_HUMAN | AV849579 GLC Homo sapiens cDNA clone GLCBVD12 3' |
| 10725 | 23758 | 37366 | 0.88 | 4.1E-01 | P18584 | SW/ISSPROT | PROBABLE SERINE PROTEASE DO-LIKE PRECURSOR (69 KDA IMMUNOGENIC PROTEIN) (SK59) |
| 10725 | 23758 | 37366 | 0.88 | 4.1E-01 | P18584 | SW/ISSPROT | PROBABLE SERINE PROTEASE DO-LIKE PRECURSOR (69 KDA IMMUNOGENIC PROTEIN) (SK59) |
| 10806 | 23839 | | 1.14 | 4.1E-01 | BF349382.1 | EST_HUMAN | CM2-HT0137-200989-010-608 HT0137 Homo sapiens cDNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 11078 | 24153 | 37790 | 40.17 | 4.1E-01 | X58700.1 | NT | Zea mays ZMPS2 gene for 19 kDa zein protein |
| 11075 | 23903 | 37525 | 1.88 | 4.1E-01 | Q09470 | SWISSPROT | VOLTAGE-GATED POTASSIUM CHANNEL PROTEIN KV1.1 (HUK1) (HBK1) |
| 12810 | 26139 | | 2.33 | 4.1E-01 | D87875.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 13153 | 26189 | | 1.24 | 4.1E-01 | AJ131016.1 | NT | Homo sapiens SOL gene locus |
| 1084 | 14229 | 27288 | 1.49 | 4.0E-01 | 8404858 | NT | Laqueus rubellus mitochondrion, complete genome |
| 1370 | 14525 | 27599 | 1.21 | 4.0E-01 | AF203478.1 | NT | Drosophila melanogaster Dalmatian (dmt) mRNA, complete cds |
| 1514 | 14567 | | 5.48 | 4.0E-01 | 6679288 | NT | Mus musculus platelet derived growth factor receptor, beta polypeptide (Pdgfrb), mRNA |
| 2081 | 16053 | 28316 | 1.08 | 4.0E-01 | Z86933.1 | NT | Ascarobolus immerus mas2 gene |
| 2061 | 16063 | 28317 | 1.08 | 4.0E-01 | Z86933.1 | NT | Ascarobolus immerus mas2 gene |
| 2866 | 13369 | 28402 | 1.11 | 4.0E-01 | 6678490 | NT | Mus musculus ubiquitin-protein ligase e3 component n-recogin (Ubr1), mRNA |
| 3033 | 16209 | 28231 | 1.18 | 4.0E-01 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 3033 | 16209 | 28232 | 1.18 | 4.0E-01 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| | | | | | | | Streptococcus pneumoniae Y1C (Y1C), Y1D (Y1D), penicillin-binding protein 2x (pbp2x), and undecaprenyl-phosphate-JDP-MurNAC-pentapeptide phospho-MurNAC-pentapeptide transferase (mraY) genes, complete cds |
| 3786 | 16947 | 28965 | 1.87 | 4.0E-01 | AF089803.1 | NT | Ovis aries partial JD2 gene for T cell receptor delta chain (TCRDJ2), exon 1 |
| 3932 | 17091 | 30088 | 3.21 | 4.0E-01 | AJ277511.1 | NT | Ovis aries partial JD2 gene for T cell receptor delta chain (TCRDJ2), exon 1 |
| 3932 | 17091 | 30089 | 3.21 | 4.0E-01 | AJ277511.1 | NT | NADH-PLASTOQUINONE OXIDOREDUCTASE CHAIN 5, CHLOROPLAST |
| 4938 | 18068 | | 8.59 | 4.0E-01 | Q31849 | SWISSPROT | EST382891 MAGE resequencer, MAGE Homo sapiens cDNA |
| 6031 | 18214 | 32635 | 1.07 | 4.0E-01 | AW970810.1 | EST_HUMAN | STRUCTURAL POLYPEPTIDE (P130) [CONTAINS: COAT PROTEIN C; SPIKE GLYCOPROTEINS E3, E2 AND E1; 8 KD PEPTIDE] |
| 6568 | 19730 | 33108 | 0.62 | 4.0E-01 | P27285 | SWISSPROT | MIR4-TN0110-180900-202-902 TN0110 Homo sapiens cDNA |
| 8113 | 21185 | 34714 | 0.51 | 4.0E-01 | BF092634.1 | EST_HUMAN | Homo sapiens OCTN2 gene, complete cds |
| 8201 | 21283 | 34806 | 0.73 | 4.0E-01 | AB018926.1 | NT | EST26068 Cerebellum II Homo sapiens cDNA 5' and similar to EST containing Alu repeat |
| 9208 | 22286 | 35827 | 1.11 | 4.0E-01 | AA323289.1 | EST_HUMAN | 601558283F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3828082 5' |
| 11869 | 24857 | | 1.67 | 4.0E-01 | BF030262.1 | EST_HUMAN | Synedocytis sp. PCC 9413 transposase gene, complete cds |
| 12021 | 28005 | | 2.38 | 4.0E-01 | L76080.1 | NT | Homo sapiens chromosome 21 segment HS21C100 |
| 12453 | 28978 | | 2.5 | 4.0E-01 | AL163300.2 | NT | S. cerevisiae chromosome X reading frame ORF YJL026w |
| 13027 | 28116 | | 1.38 | 4.0E-01 | Z49301.1 | NT | hab84605.x1 Sceres NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE: 3' similar to SW_NTCR_BOVIN O18875 SODIUM- AND CHLORIDE-DEPENDENT CREATINE TRANSPORTER 1; |
| 13168 | 28038 | | 1.21 | 4.0E-01 | BF432020.1 | EST_HUMAN | S. cerevisiae chromosome X reading frame ORF YJL026w |
| 13222 | 25907 | | 1.26 | 4.0E-01 | Z49301.1 | NT | Gorilla gorilla carboxyl-ester lipase (CEL) gene, complete cds |
| 1409 | 14563 | 27638 | 1.84 | 3.9E-01 | AF206618.1 | NT | Homo sapiens mRNA for KIAA1193 protein, partial cds |
| 2707 | 15825 | 28940 | 3.34 | 3.9E-01 | AB033019.1 | NT | H. sapiens B-myb gene |
| 2770 | 15885 | 28994 | 5.03 | 3.8E-01 | X82032.1 | NT | |

Page 63 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 2770 | 15895 | 28995 | 5.03 | 3.9E-01 | X82032.1 | NT | H.sapiens B-myb gene |
| 3168 | 18341 | 29349 | 4.24 | 3.9E-01 | AJ225896.1 | NT | Sinorhizobium meliloti egf, syB2, cys3 genes and ori3 |
| 4160 | 17340 | 30333 | 1.48 | 3.9E-01 | BF592611.1 | EST_HUMAN | 7481401.x1 NCI_CGAP_B16 Homo sapiens cDNA clone IMAGE:33339189 3' |
| 5108 | 18234 | 31203 | 1.47 | 3.9E-01 | BE728687.1 | EST_HUMAN | 601663948F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3833689 5' |
| 6055 | 18237 | 32562 | 4.58 | 3.9E-01 | BF208038.1 | EST_HUMAN | 601882382F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:4082055 5' |
| 8410 | 19579 | 32840 | 0.64 | 3.9E-01 | U82695.2 | NT | Homo sapiens zinc finger protein 92 (ZFP92), expressed-Xq28STS protein (XQ28ORF), and biglycan (BGN) genes, complete cds; and plasma membrane calcium ATPase isoform 3 (PMCA3) gene, partial cds |
| 8140 | 21222 | 34740 | 0.99 | 3.9E-01 | U79415.1 | NT | Homo sapiens prepro dipeptidyl peptidase I (DPP-I) gene, complete cds |
| 8062 | 22141 | 35686 | 0.83 | 3.9E-01 | AW177011.1 | EST_HUMAN | CM3-CT0106-170869-004-b08 CT0105 Homo sapiens cDNA |
| 9071 | 22150 | | 0.82 | 3.9E-01 | BF348634.1 | EST_HUMAN | 602018944F1 NCI_CGAP_B1667 Homo sapiens cDNA clone IMAGE:4156322 5' |
| 9435 | 22509 | 36075 | 1.73 | 3.9E-01 | AW195988.1 | EST_HUMAN | xm86d04.x1 Scarses_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2701351 3' similar to TR:094821 |
| 9745 | 22809 | 36387 | 1.59 | 3.9E-01 | AI937337.1 | EST_HUMAN | 004821 KIAA0713 PROTEIN ; |
| 10082 | 23120 | 36722 | 2.86 | 3.9E-01 | M18879.1 | NT | wq78a02.x1 NCI_CGAP_B166 Homo sapiens cDNA clone IMAGE:2487868 3' similar to |
| 10150 | 23188 | | 0.88 | 3.9E-01 | 11465620 | NT | SW_RFX5_HUMAN P43382 BINDING REGULATORY FACTOR. ; |
| 10369 | 23404 | 37015 | 0.92 | 3.9E-01 | D88722.1 | NT | Human clabindin 27 gene, exons 10 and 11, and L1 and Alu repeats |
| 10362 | 23597 | 37203 | 0.61 | 3.9E-01 | BF361858.1 | EST_HUMAN | Porphyra purpurea mitochondrion, complete genome |
| 10562 | 23597 | 37204 | 0.81 | 3.9E-01 | BF361858.1 | EST_HUMAN | Nicotiana tabacum mRNA for TATA binding protein (TBP), complete cds |
| 10836 | 23663 | | 0.47 | 3.9E-01 | AB037832.1 | NT | CM2-NN0034-030600-218-104 NN0034 Homo sapiens cDNA |
| 11059 | 24135 | | 1.37 | 3.9E-01 | AV685874.1 | EST_HUMAN | CM2-NN0034-030600-218-104 NN0034 Homo sapiens cDNA |
| 12049 | 25030 | 38738 | 1.89 | 3.9E-01 | AV702823.1 | EST_HUMAN | Homo sapiens mRNA for KIAA1411 protein, partial cds |
| 12221 | 26055 | | 4.03 | 3.9E-01 | AF304354.1 | NT | AV685874 GK Homo sapiens cDNA clone GBCQCG11 5' |
| 12816 | 26603 | | 1.75 | 3.9E-01 | 11433335 | NT | AV702823 ADB Homo sapiens cDNA clone ADBDBE06 5' |
| 164 | 13389 | | 7.58 | 3.8E-01 | 7018488 | NT | Homo sapiens proteoglycan 3 (PRG3) gene, complete cds |
| 618 | 13711 | | 6.1 | 3.8E-01 | AB029291.1 | NT | Homo sapiens hypothetical protein FLJ10583 (FLJ10583), mRNA |
| 1916 | 15062 | | 1.38 | 3.8E-01 | AE003870.1 | NT | Homo sapiens protein kinase PKNbeta (pknbeta), mRNA |
| 2637 | 15760 | 28874 | 1.84 | 3.8E-01 | AF214117.1 | NT | Mus musculus pcm-1 mRNA for pericentriolar material-1, complete cds |
| 2697 | 16069 | 28931 | 6.2 | 3.8E-01 | 6878002 | NT | Xyella fastidiosa, section 16 of 229 of the complete genome |
| 3086 | 16242 | | 0.71 | 3.8E-01 | AJ251057.1 | NT | Arabidopsis thaliana putative c-myc-like transcription factor (MYB3R-3) mRNA, complete cds |
| 3113 | 16289 | 29305 | 1.91 | 3.8E-01 | AF043383.1 | NT | Arabidopsis thaliana putative c-myc-like transcription factor (MYB3R-3) mRNA, complete cds |
| 3572 | 16737 | 29752 | 8.7 | 3.8E-01 | AL161618.2 | NT | Human Immunodeficiency virus type 1 complete genome (isolate 98SE-MP1213) |
| 3628 | 16762 | | 1.09 | 3.8E-01 | AI807219.1 | EST_HUMAN | Pleuroctes americanus aminopeptidase N (ampN) gene, partial cds |
| | | | | | | | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 30 |
| | | | | | | | wf38b12.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2367855 3' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 3643 | 16792 | | 0.97 | 3.8E-01 | AI07219.1 | EST_HUMAN | w38b12.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2357855 3' |
| 3652 | 17012 | 30012 | 1.07 | 3.8E-01 | BE164080.1 | EST_HUMAN | PM0-HT0339-200400-010-G01 HT0339 Homo sapiens cDNA |
| 4027 | 17183 | 30192 | 0.65 | 3.8E-01 | 6754095 | NT | Mus musculus general transcription factor II (GTF2), mRNA |
| 5727 | 18920 | 32214 | 1.11 | 3.8E-01 | Q04888 | SWISSPROT | TRANSCRIPTION FACTOR SOX-10 |
| 6469 | 19636 | | 0.63 | 3.8E-01 | S46825.1 | NT | prion protein (PrP ^{Sc}), Genomic, 2449 nt |
| 6761 | 19917 | 33312 | 5.74 | 3.8E-01 | BE072399.1 | EST_HUMAN | QV3-BT0537-271289-049-e02 BT0537 Homo sapiens cDNA |
| 6899 | 20214 | 33044 | 4.39 | 3.8E-01 | AI374801.1 | EST_HUMAN | ta54f11.x1 Soares_toti_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:2047917 3' similar to contains Alu repetitive element |
| 7079 | 20132 | 33649 | 1.38 | 3.8E-01 | AL161613.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 25 |
| 7695 | 20760 | | 4.27 | 3.8E-01 | XG1597.1 | NT | Mus musculus gene for kallikrein-binding protein |
| 8493 | 21674 | 35111 | 0.54 | 3.8E-01 | M81385.1 | NT | Mouse liver receptor homologous protein (LRH-1) mRNA, complete cds |
| 8764 | 21833 | 36373 | 2.04 | 3.8E-01 | AB048851.1 | NT | Homo sapiens mRNA for KIAA1631 protein, partial cds |
| 8826 | 21905 | 35444 | 1.08 | 3.8E-01 | 11441264 | NT | Homo sapiens FOS-like antigen-1 (FOSL1), mRNA |
| 8017 | 22096 | 35636 | 1.28 | 3.8E-01 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C079 |
| 9781 | 22699 | | 4.35 | 3.8E-01 | T95413.1 | EST_HUMAN | ye43h08.11 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:120539 5' similar to contains Alu repetitive element; contains PTR5 repetitive element |
| 11034 | 24113 | | 1.38 | 3.8E-01 | AV755814.1 | EST_HUMAN | AV755814 BM Homo sapiens cDNA clone BMFBCE07 5' |
| 11699 | 24696 | 38368 | 1.57 | 3.8E-01 | U82871.2 | NT | Homo sapiens chromosome Xq28 melanoma antigen family A2a (MAGEA2A), melanoma antigen family A12 (MAGEA12), melanoma antigen family A2b (MAGEA2B), melanoma antigen family A3 (MAGEA3), calreticulin (CALT), NAD(P)H dehydrogenase-like protein (NSDHL), end LI> |
| 11824 | 24813 | | 2.87 | 3.8E-01 | BE19219.1 | EST_HUMAN | RC0-HT0841-040800-032-512 HT0841 Homo sapiens cDNA |
| 11992 | 24977 | 38681 | 2.5 | 3.8E-01 | R42550.1 | EST_HUMAN | yf92h11.s1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:30289 3' |
| 11992 | 24977 | 38682 | 2.5 | 3.8E-01 | R42550.1 | EST_HUMAN | yf92h11.s1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:30289 3' |
| 12436 | 25309 | | 2.61 | 3.8E-01 | AE001124.1 | NT | Borrelia burgdorferi (section 10 of 70) of the complete genome |
| 12689 | 26082 | | 2 | 3.8E-01 | U94788.1 | NT | Human p53 (TP53) gene, complete cds |
| 12895 | 25483 | | 1.71 | 3.8E-01 | BE822556.1 | EST_HUMAN | QV3-E10063-190700-271-e08 E10063 Homo sapiens cDNA |
| 13106 | 26720 | | 1.48 | 3.8E-01 | U78031.1 | NT | Mus musculus apoptosis inhibitor bcl-x (bcl-x) gene, exon 3 and complete cds |
| 13188 | 26772 | 31693 | 1.78 | 3.8E-01 | AF194972.1 | NT | Mus musculus developmental control protein mRNA, partial cds |
| 2551 | 15676 | 28769 | 12.81 | 3.7E-01 | AB037631.1 | NT | Homo sapiens mRNA for KIAA1410 protein, partial cds |
| 3549 | 16714 | 29726 | 10.67 | 3.7E-01 | AF056336.1 | NT | Danio rerio bone morphogenetic protein 4 precursor (BMP4) gene, complete cds |
| 3974 | 17131 | 30135 | 1.09 | 3.7E-01 | AA319482.1 | EST_HUMAN | EST21715 Adrenal gland tumor Homo sapiens cDNA 5' end |
| 4344 | 17487 | 30470 | 9.09 | 3.7E-01 | A1218707.1 | EST_HUMAN | Q439-c07.x1 Soares_NSF_F8_9w_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:1610188 3' |
| 4440 | 17590 | 30559 | 1.31 | 3.7E-01 | AW878037.1 | EST_HUMAN | MP3-OT0007-080300-104-b02 OT0007 Homo sapiens cDNA |
| 4509 | 17848 | 30636 | 2.91 | 3.7E-01 | AE002408.1 | NT | Neisseria meningitidis serogroup B strain MC58 section 50 of 206 of the complete genome |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptbr |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 5280 | 18399 | 31368 | 0.74 | 3.7E-01 | T12298.1 | EST_HUMAN | A033R Heart Homo sapiens cDNA clone A033 |
| 5280 | 18399 | 31369 | 0.74 | 3.7E-01 | T12298.1 | EST_HUMAN | A033R Heart Homo sapiens cDNA clone A033 |
| 5883 | 19072 | 32380 | 1.27 | 3.7E-01 | AF135187.1 | NT | Homo sapiens Interferon-induced protein p78 (MX1) gene, complete cds |
| 6071 | 19253 | 32582 | 1.25 | 3.7E-01 | AL163278.2 | NT | Homo sapiens chromosome 21 segment H921C078 |
| 6839 | 19798 | 33187 | 0.7 | 3.7E-01 | M10808.1 | NT | Chicken (White leghorn) delta-1 and delta-2 crystallin genes, complete cds |
| 6660 | 19819 | | 0.8 | 3.7E-01 | L10353.1 | NT | Mus saxicola haptoglobin mRNA, complete cds |
| 7283 | 20375 | 33832 | 3.48 | 3.7E-01 | 11525843 | NT | Homo sapiens tumor endothelial marker 7 precursor (TEM7), mRNA |
| 7865 | 21015 | 34527 | 0.69 | 3.7E-01 | T66802.1 | EST_HUMAN | y650d07.3 Soares fetal liver spleen 1N1FLS Homo sapiens cDNA clone IMAGE:68324 5' |
| 8524 | 21805 | 35143 | 1.98 | 3.7E-01 | 11438739 | NT | Homo sapiens chromosome 12 open reading frame 4 (G12ORF4), mRNA |
| 8524 | 21605 | 35144 | 1.98 | 3.7E-01 | 11438739 | NT | Homo sapiens chromosome 12 open reading frame 4 (G12ORF4), mRNA |
| 8560 | 21641 | 35180 | 0.68 | 3.7E-01 | AA028912.1 | EST_HUMAN | pk43b11.s1 NCL CGAP_La2 Homo sapiens cDNA clone IMAGE:1518701 3' |
| 9402 | 22478 | | 1.34 | 3.7E-01 | AJ271388.1 | NT | Gallus gallus mRNA for beta-carotene 15,15'-dioxygenase (bcdo gene) |
| 10373 | 23408 | | 0.5 | 3.7E-01 | K00691.1 | NT | mouse Ig germline alpha membrane oxo region |
| 10414 | 23449 | 37054 | 4.21 | 3.7E-01 | A133941.1 | EST_HUMAN | q145b07.x1 Soares fetal lung NBHL18W Homo sapiens cDNA clone IMAGE:1950997 3' |
| 10783 | 23816 | 37437 | 0.48 | 3.7E-01 | U08361.1 | NT | HIV-1 RU107B from Russia, gp120 V3-V5 region (env) gene, partial cds |
| 10783 | 23816 | 37438 | 0.48 | 3.7E-01 | U08361.1 | NT | HIV-1 RU107B from Russia, gp120 V3-V5 region (env) gene, partial cds |
| 11097 | 24170 | 37805 | 1.8 | 3.7E-01 | X05658.1 | NT | Rabbit mRNA for fast skeletal muscle myosin heavy chain (MHC) |
| 11285 | 24351 | 37889 | 2.02 | 3.7E-01 | AJ297357.1 | NT | Homo sapiens partial LIMD1 gene for LIM domains containing protein 1 and KIAA0851 gene |
| 11285 | 24351 | 37890 | 2.02 | 3.7E-01 | AJ297357.1 | NT | Homo sapiens partial LIMD1 gene for LIM domains containing protein 1 and KIAA0851 gene |
| 11754 | 23840 | 37568 | 2.73 | 3.7E-01 | X04122.1 | NT | Bovine mRNA for terminal deoxynucleotidyltransferase (TdT) (EG 2.7.7.31) |
| 12004 | 24989 | | 1.42 | 3.7E-01 | AA973540.1 | EST_HUMAN | 0048c03.s1 NCL CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1569221 3' similar to cb:M77698 |
| 12066 | 25047 | | 3.5 | 3.7E-01 | 6677678 | NT | TRANSCRIPTIONAL REPRESSOR PROTEIN YY1 (HUMAN); |
| 12137 | 25654 | | 1.17 | 3.7E-01 | J04982.1 | NT | Mus musculus retinoblastoma 1 (Rb1), mRNA |
| 12314 | 25229 | | 3.94 | 3.7E-01 | AJ243525.1 | NT | Human heart/skeletal muscle ATP/ADP translocase (ANT1) gene, complete cds |
| 12410 | 26289 | | 1.82 | 3.7E-01 | D88978.1 | NT | Chlamydomonas reinhardtii partial omp1 gene for outer membrane protein 1 |
| 12821 | 25543 | | 2.94 | 3.7E-01 | AL121154.1 | EST_HUMAN | Human mRNA for KIAA0223 gene, partial cds |
| 12902 | 25937 | 31971 | 6.99 | 3.7E-01 | Y18000.1 | NT | DKFZp782K075_j1 762 (synonym: tmei2) Homo sapiens cDNA clone DKFZp782K075 5' |
| 271 | 13489 | 26520 | 0.77 | 3.6E-01 | AJ009809.1 | NT | Homo sapiens NF2 gene |
| 1020 | 14191 | | 9.07 | 3.6E-01 | U89241.1 | NT | Brassica napus mRNA for MAP4K alpha2 protein |
| 1342 | 14498 | 27570 | 3.97 | 3.6E-01 | T80255.1 | EST_HUMAN | Human mbp gene, partial cds |
| 1342 | 14498 | 27571 | 3.97 | 3.6E-01 | T80255.1 | EST_HUMAN | y033e05.1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:24443 5' |
| 1866 | 15109 | 28209 | 6.55 | 3.6E-01 | AW590184.1 | EST_HUMAN | y033e05.1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:24443 5' |
| 1866 | 15109 | 28210 | 6.55 | 3.6E-01 | AW590184.1 | EST_HUMAN | hg33f02.x1 NCL CGAP_G08 Homo sapiens cDNA clone IMAGE:2847418 3' |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 2007 | 15147 | 28253 | 6.7 | 3.6E-01 | AF216207.1 | NT | Mus musculus ribosomal protein S19 (Rps19) gene, complete cds |
| 2113 | 15251 | | 1.15 | 3.6E-01 | AF056927.1 | NT | Rattus norvegicus repeat element associated with the Rasgr1 gene |
| 2343 | 15474 | | 2.33 | 3.6E-01 | AB002321.1 | NT | Human mRNA for KIA0323 gene, partial cds |
| 2463 | 15590 | | 2.8 | 3.6E-01 | X76725.1 | NT | P. Irregular (P3804) gene for ac1in |
| 2558 | 15681 | 28808 | 2.66 | 3.6E-01 | AW812033.1 | EST_HUMAN | RC5-ST0171-181099-011-g07 ST0171 Homo sapiens cDNA |
| 2884 | 15814 | 28928 | 1.69 | 3.6E-01 | P24206 | SWISSPROT | PROTEIN-L-ISOASPARTATE O-METHYLTRANSFERASE (PROTEIN-BETA-ASPARTATE METHYLTRANSFERASE) (PIMT) (PROTEIN L-ISOASPARTYL METHYLTRANSFERASE) (L-ISOASPARTYL PROTEIN CARBOXYL METHYLTRANSFERASE) |
| 2984 | 18475 | | 8.47 | 3.6E-01 | AF189485.1 | NT | Drosophila melanogaster sugar transporter 3 (sug3) mRNA, complete cds |
| 3558 | 18723 | 29738 | 1.98 | 3.6E-01 | X76758.1 | NT | H. sapiens serotonine transporter gene, exons 9 and 10 |
| 3558 | 18723 | 29739 | 1.98 | 3.6E-01 | X76758.1 | NT | H. sapiens serotonine transporter gene, exons 9 and 10 |
| 4528 | 17669 | 30652 | 1.2 | 3.6E-01 | BE707883.1 | EST_HUMAN | RC1-H10545-150600-014-b12 HT0545 Homo sapiens cDNA |
| 4863 | 17993 | 30981 | 0.69 | 3.6E-01 | AJ009609.1 | NT | Brassica napus mRNA for MAP4K alpha2 protein |
| 5123 | 18249 | 31215 | 3.18 | 3.6E-01 | AW335933.1 | EST_HUMAN | h02g04.x1 NCJ CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2872568 3' |
| 5209 | 18330 | 31302 | 0.92 | 3.6E-01 | BE067899.1 | EST_HUMAN | MR4-BT0358-270300-005-c10 BT0358 Homo sapiens cDNA |
| 5498 | 18697 | 31713 | 0.64 | 3.6E-01 | AJ006565.1 | NT | Homo sapiens lile gene intron 5 |
| 6211 | 19388 | 32735 | 0.96 | 3.6E-01 | P18431 | SWISSPROT | FORMATE HYDROXYLYASE SUBUNIT 5 PRECURSOR (FHL SUBUNIT 5) (HYDROGENASE-3 COMPONENT E) |
| 6807 | 19787 | 33155 | 1.63 | 3.6E-01 | Y10108.1 | NT | Homo sapiens PHEX gene |
| 7298 | 20380 | | 3.85 | 3.6E-01 | R84090.1 | EST_HUMAN | Y74906.r1 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:276887 5' |
| 7436 | 20512 | 33985 | 1.52 | 3.6E-01 | AW027174.1 | EST_HUMAN | W72c10.x1 Soares_thymus_NHFT Homo sapiens cDNA clone IMAGE:2513010 3' similar to TR.O15117 |
| 8419 | 21500 | 35032 | 0.75 | 3.6E-01 | P98167 | SWISSPROT | D15117 FYN BINDING PROTEIN. [1] |
| 8474 | 21555 | 35087 | 18.45 | 3.6E-01 | AL161583.2 | NT | SCO-SPONDIN |
| | | | | | | | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 79 |
| 9179 | 22257 | 35789 | 0.48 | 3.6E-01 | U91328.1 | NT | Human hereditary haemochromatosis region, histone 2A-like protein gene, hereditary haemochromatosis (HLA-H) gene, RoRet gene, and sodium phosphate transporter (NPT3) gene, complete cds |
| 9179 | 22257 | 35800 | 0.48 | 3.6E-01 | U91328.1 | NT | Human hereditary haemochromatosis region, histone 2A-like protein gene, hereditary haemochromatosis (HLA-H) gene, RoRet gene, and sodium phosphate transporter (NPT3) gene, complete cds |
| 9203 | 22281 | 35820 | 3.04 | 3.6E-01 | 4504956 | NT | Homo sapiens lysosomal-associated membrane protein 2 (LAMP2), transcript variant LAMP2A, mRNA |
| 9203 | 22281 | 35821 | 3.04 | 3.6E-01 | 4504956 | NT | Homo sapiens lysosomal-associated membrane protein 2 (LAMP2), transcript variant LAMP2A, mRNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 9393 | 22463 | 36032 | 1.23 | 3.6E-01 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 9599 | 22654 | 36225 | 1.13 | 3.6E-01 | X17550.1 | NT | D. melanogaster singed gene, exons 3, 4, 5 & 6 |
| 9599 | 22654 | 36229 | 1.13 | 3.6E-01 | X17550.1 | NT | D. melanogaster singed gene, exons 3, 4, 5 & 6 |
| 9659 | 22631 | | 0.58 | 3.6E-01 | X62825.1 | NT | C. perfringens plc gene for phospholipase C upstream region containing bent DNA fragment |
| 10057 | 23105 | 36708 | 16.64 | 3.6E-01 | Q53194 | SWISSPROT | PROBABLE PEPTIDE ABC TRANSPORTER ATP-BINDING PROTEIN Y4T8 |
| 11187 | 24258 | 37691 | 2.42 | 3.6E-01 | BE902390.1 | EST_HUMAN | 601876418F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3958997 5' |
| 11370 | 24431 | 38088 | 3.27 | 3.6E-01 | AB004283.1 | NT | Arabidopsis thaliana mRNA for SigB, complete cds |
| 11729 | 23915 | 37640 | 4.44 | 3.6E-01 | AE000886.1 | NT | Methanobacterium thermoautotrophicum from bases 702375 to 714311 (section 62 of 148) of the complete genome |
| 12173 | 26205 | | 3.16 | 3.6E-01 | Y18210.1 | NT | Homo sapiens hHb5 gene for hair keratin, exons 1 to 9 |
| 12261 | 25197 | | 7.87 | 3.6E-01 | AE000335.1 | NT | Escherichia coli K-12 MG1655 section 225 of 400 of the complete genome |
| 12420 | 25297 | | 3.63 | 3.6E-01 | U66888.1 | NT | Mus musculus Emr1 mRNA, complete cds |
| 12828 | 25552 | | 1.98 | 3.6E-01 | 11432598 | NT | Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 10 (AF10), mRNA |
| 13130 | 26141 | | 1.4 | 3.6E-01 | AW160229.1 | EST_HUMAN | x60e11.x1 NCI CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2876116 3' similar to gb:K00558 TUBULIN ALPHA-1 CHAIN (HUMAN); |
| 13146 | 25745 | | 1.38 | 3.6E-01 | Z54173.1 | NT | Pyrococcus sp. pol gene |
| 214 | 13437 | 28487 | 3.71 | 3.5E-01 | 6078933 | NT | Mus musculus mannose receptor, C type 2 (Mrc2), mRNA |
| 695 | 13978 | 26911 | 1.03 | 3.5E-01 | AL161581.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 77 |
| 743 | 13924 | 26965 | 1.53 | 3.5E-01 | 7706136 | NT | Homo sapiens GAP-like protein (LOC51306), mRNA |
| 743 | 13924 | 26966 | 1.53 | 3.5E-01 | 7706136 | NT | Homo sapiens GAP-like protein (LOC51306), mRNA |
| 801 | 13981 | 27033 | 4.66 | 3.5E-01 | BF129796.1 | EST_HUMAN | 601811060R1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4053951 3' |
| 1670 | 14822 | 27905 | 1.28 | 3.5E-01 | U35778.1 | NT | Rattus norvegicus ADP-ribosylation factor-directed GTPase activating protein mRNA, complete cds |
| 2671 | 16098 | 28908 | 1.34 | 3.5E-01 | AA223252.1 | EST_HUMAN | z08e09.s1 Stratagene NT2 neuronal precursor 937230 Homo sapiens cDNA clone IMAGE:850872 3' |
| 3796 | 16956 | | 0.73 | 3.5E-01 | BF214381.1 | EST_HUMAN | 601845470F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4076680 5' |
| 4378 | 17621 | 30501 | 2.62 | 3.5E-01 | AF071283.1 | NT | Danio rerio homeobox protein (hox4b) gene, complete cds |
| 5048 | 18176 | 31153 | 4.34 | 3.6E-01 | M18349.1 | NT | Rat leukocyte common antigen (L-CA) gene, exons 1 through 5 |
| 5323 | 13349 | 26376 | 0.6 | 3.5E-01 | AL161586.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 36 |
| 5449 | 18049 | 31827 | 1.1 | 3.5E-01 | Q96987 | SWISSPROT | EARLY E2A DNA-BINDING PROTEIN |
| 5449 | 18049 | 31828 | 1.1 | 3.5E-01 | Q96987 | SWISSPROT | EARLY E2A DNA-BINDING PROTEIN |
| 5687 | 18861 | 32146 | 1.29 | 3.5E-01 | D42046.1 | NT | Human mRNA for KIAA0083 gene, complete cds |
| 6367 | 19537 | | 1 | 3.6E-01 | AW863918.1 | EST_HUMAN | PM4-SN0012-030400-001-a11 SN0012 Homo sapiens cDNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 6538 | 19701 | 33074 | 0.79 | 3.5E-01 | AA431833.1 | EST_HUMAN | zw79f03.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:782428 5' similar to TR:G1066935 |
| 6580 | 19742 | 33124 | 0.69 | 3.5E-01 | U37150.1 | NT | G1066935 F10F2.1: |
| 6803 | 19558 | 33358 | 0.9 | 3.5E-01 | O24357 | SWISSPROT | Bos taurus peptide methionine sulfoxide reductase (msrA) mRNA, complete cds |
| 7201 | 20066 | | 3.38 | 3.5E-01 | X98505.1 | NT | GLUCOSE-6-PHOSPHATE 1-DEHYDROGENASE, CHLOROPLAST PRECURSOR (G6PD) |
| 7713 | 20778 | 34284 | 0.69 | 3.5E-01 | P47281 | SWISSPROT | S. scrofa mRNA for CD31 protein (PECAM-1) |
| 7713 | 20778 | 34265 | 0.59 | 3.5E-01 | P47281 | SWISSPROT | HISTIDYL-TRNA SYNTHETASE (HISTIDINE-TRNA LIGASE) (HISRS) |
| 8262 | 21344 | | 2.12 | 3.5E-01 | 11448042 | NT | HISTIDYL-TRNA SYNTHETASE (HISTIDINE-TRNA LIGASE) (HISRS) |
| 8265 | 21347 | 34882 | 0.82 | 3.5E-01 | BF358871.1 | EST_HUMAN | Homo sapiens tumor protein p53-binding protein, 2 (TP53BP2), mRNA |
| 8662 | 21742 | | 0.77 | 3.5E-01 | AF051591.1 | NT | RC4-E10024-261600-014-007 E10024 Homo sapiens cDNA |
| 9127 | 22208 | 36749 | 1.17 | 3.5E-01 | 4507610 | NT | Rattus norvegicus Na-K-Cl cotransporter (Nkcc1) mRNA, complete cds |
| 9937 | 22978 | 36587 | 1.75 | 3.5E-01 | Q02294 | SWISSPROT | Homo sapiens tyrosine kinase non-receptor 1 (TNK1), mRNA |
| 10090 | 23128 | 36731 | 4.78 | 3.5E-01 | Z28625.1 | NT | VOLTAGE-DEPENDENT N-TYPE CALCIUM CHANNEL ALPHA-1B SUBUNIT (CALCIUM CHANNEL, L |
| 10172 | 23209 | 36802 | 1.12 | 3.5E-01 | BE174794.1 | EST_HUMAN | TYPE, ALPHA-1 POLYPEPTIDE ISOFORM 5) (BRAIN CALCIUM CHANNEL III) (BII) |
| 10972 | 24062 | 37685 | 2.62 | 3.5E-01 | X91084.1 | NT | Xlaeids gene for albumin including HP1 enhancer |
| 11274 | 24342 | 37981 | 1.97 | 3.5E-01 | AJ243178.1 | NT | QV2-HT0577-090400-128-c07 HT0577 Homo sapiens cDNA |
| 11274 | 24342 | 37982 | 1.97 | 3.5E-01 | AJ243178.1 | NT | C. griseus rhodopsin gene for opsin protein |
| 11810 | 24800 | 39499 | 1.33 | 3.5E-01 | U07000.1 | NT | Gallus gallus SPARC gene for osteonectin, promoter and exon 1 |
| 11892 | 24880 | 38577 | 1.44 | 3.5E-01 | N77597.1 | EST_HUMAN | Gallus gallus SPARC gene for osteonectin, promoter and exon 1 |
| 11980 | 24965 | 38687 | 1.53 | 3.5E-01 | L05145.1 | NT | Human breakpoint cluster region (BCR) gene, complete cds |
| 12271 | 26209 | | 1.51 | 3.5E-01 | AF297468.1 | NT | yz80f112.r1 Soares_multiple_sclerosis_2Nbr-IMSP Homo sapiens cDNA clone IMAGE:290376 5' |
| 12344 | 26249 | | 6.66 | 3.5E-01 | X64565.1 | NT | Human glucokinase (GCK) gene, repeat polymorphism |
| 12507 | 25348 | | 2.91 | 3.5E-01 | AE001774.1 | NT | Schistosoma mansoni strain N1MRL chromatin assembly factor 1 small subunit-like protein (RBAP48) mRNA, complete cds |
| 12710 | 25472 | | 1.5 | 3.5E-01 | AE001691.1 | NT | B. taurus alpA1 gene for F(0)F(1) ATP synthase alpha-subunit |
| 13196 | 26025 | 31673 | 3.16 | 3.5E-01 | H80814.1 | EST_HUMAN | Thermoboga maritima section 86 of 136 of the complete genome |
| 13196 | 26025 | 31674 | 3.16 | 3.5E-01 | H80814.1 | EST_HUMAN | Thermoboga maritima section 3 of 136 of the complete genome |
| 725 | 13907 | | 1.78 | 3.4E-01 | AJ242958.1 | NT | ys64f11.r1 Soares retina N2b4-IR Homo sapiens cDNA clone IMAGE:218597 5' |
| 998 | 14169 | 27230 | 8.2 | 3.4E-01 | Y09786.2 | NT | ys64f11.r1 Soares retina N2b4-IR Homo sapiens cDNA clone IMAGE:218597 5' |
| 1000 | 14171 | 27232 | 2.06 | 3.4E-01 | AW380120.1 | EST_HUMAN | Homo sapiens partial N-myc (exon 3), HPV45 L2, HPV45 L1, HPV45 E6, HPV45 E7 and HPV45 E1 genes isolated from IC4 cervical carcinoma cell line |
| 1357 | 14512 | 27585 | 2.35 | 3.4E-01 | Y00554.1 | NT | Pseudomonas fluorescens colR, colS genes, of222 and partial inaA gene |
| 2474 | 15601 | 28728 | 2.54 | 3.4E-01 | D90809.1 | NT | QV3-HT0261-241189-019-g10 HT0261 Homo sapiens cDNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 3065 | 18241 | 29281 | 0.87 | 3.4E-01 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 3065 | 18241 | 29282 | 0.87 | 3.4E-01 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 3218 | 18392 | 29403 | 1.09 | 3.4E-01 | D90909.1 | NT | Synochrysis sp. POC6803 complete genome, 11/27, 1311235-1430418 |
| 3230 | 18404 | 29416 | 8.1 | 3.4E-01 | U89805.1 | NT | Canis familiaris rod photoreceptor cGMP-gated channel alpha-subunit (CNGC1) mRNA, complete cds |
| 3424 | 18593 | 29608 | 0.76 | 3.4E-01 | AF034862.1 | NT | Homo sapiens pulmonary surfactant protein D, promoter region and exon 1 |
| 3620 | 18784 | 29800 | 4.47 | 3.4E-01 | AF106835.1 | NT | Methylobacterium sp. strain SS1 putative GrpE (grpE), DnaK (dnaK), and putative DnaJ (dnaJ) genes, complete cds |
| 3890 | 17049 | | 1.89 | 3.4E-01 | BF449010.1 | EST_HUMAN | 7n94a01.x1 NCL CGAP_Ov18 Homo sapiens cDNA clone IMAGE:3572232 3' similar to TR:Q8UJ15 |
| 4163 | 17313 | | 1.48 | 3.4E-01 | AA584198.1 | EST_HUMAN | Q8UJ15 DJ18C9.1 |
| 4787 | 17802 | 30884 | 1.79 | 3.4E-01 | BE069912.1 | EST_HUMAN | ro11b10.s1 NCL CGAP_Phe1 Homo sapiens cDNA clone IMAGE:1100347 3' |
| 5086 | 18104 | | 4.3 | 3.4E-01 | AI240973.1 | EST_HUMAN | MR4-BT0103-230200-202-c01 BT0403 Homo sapiens cDNA |
| 5802 | 18992 | 32295 | 2.84 | 3.4E-01 | AL161684.2 | NT | q95c05.x1 NCL CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1867208 3' similar to contigno Alu repetitive element |
| 5832 | 19118 | | 4.92 | 3.4E-01 | AA085313.1 | EST_HUMAN | Areidopsis thaliana DNA chromosome 4, contig fragment No. 80 |
| 6130 | 19309 | | 2.17 | 3.4E-01 | L02871.1 | NT | zn12d11.s1 Stratiotes hNT neuron (8537233) Homo sapiens cDNA clone IMAGE:347221 3' |
| 6154 | 19330 | 32676 | 0.96 | 3.4E-01 | BE748912.1 | EST_HUMAN | Echovirus 22 1AB, 1C, 1D, 2A, 2B, 2C, 3A, 3B, 3C, 3D proteins RNA, complete mature peptides and cds |
| 6234 | 19409 | 32757 | 1.8 | 3.4E-01 | AW204505.1 | EST_HUMAN | 601671811T1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:3838826 3' |
| 6364 | 19534 | 32893 | 1.71 | 3.4E-01 | AL120544.1 | EST_HUMAN | U1-H-B1t-act-e-12-Q-J1.s1 NCL CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2719582 3' |
| 6882 | 20034 | | 1.39 | 3.4E-01 | N85225.1 | EST_HUMAN | DKFZp61A249_t1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761A249 5' |
| 7086 | 20180 | 33604 | 1.07 | 3.4E-01 | AI468082.1 | EST_HUMAN | z552a12.s1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:307342 3' |
| 7205 | 20070 | 33480 | 0.6 | 3.4E-01 | BF678702.1 | EST_HUMAN | Im63g05.x1 NCL CGAP_Brn26 Homo sapiens cDNA clone IMAGE:2162840 3' similar to gb-S37431 |
| 8060 | 21172 | | 0.48 | 3.4E-01 | AE000493.1 | NT | LAMININ RECEPTOR (HUMAN); |
| 8432 | 21513 | 35044 | 0.68 | 3.4E-01 | Y14830.1 | EST_HUMAN | 602085283F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4249385 5' |
| 8684 | 21764 | | 1.38 | 3.4E-01 | AA337063.1 | EST_HUMAN | Escherichia coli K-12 MG1655 section 383 of 400 of the complete genome |
| 8760 | 21839 | 35380 | 0.71 | 3.4E-01 | L04690.1 | NT | Homo sapiens TCRAY28 gene, allele A4, partial |
| 9053 | 22132 | 35676 | 1.87 | 3.4E-01 | P28013 | SWISSPROT | EST141765 Endometrial tumor Homo sapiens cDNA 5' end |
| 9413 | 22487 | 36051 | 4.12 | 3.4E-01 | P28013 | SWISSPROT | Cholelus griseus cholesterol 7-alpha-hydroxylase gene, complete cds |
| 9413 | 22487 | 36052 | 4.12 | 3.4E-01 | P28013 | SWISSPROT | Boxine enterovirus strain K2577, complete genome |
| 9821 | 22673 | | 0.57 | 3.4E-01 | AB017510.1 | NT | INTEGRIN BETA-8 PRECURSOR |
| 9845 | 21088 | 34602 | 4.68 | 3.4E-01 | U19492.1 | NT | INTEGRIN BETA-8 PRECURSOR |
| | | | | | | | Ephydella fluviatilis mRNA for PLC-gamma5, complete cds |
| | | | | | | | Saccharomyces cerevisiae Maf1p (MAF1) gene, complete cds |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 9845 | 21088 | 34603 | 4.68 | 3.4E-01 | U19492.1 | NT | Saccharomyces cerevisiae Maf1p (MAF1) gene, complete cds |
| 9897 | 22937 | 36522 | 0.88 | 3.4E-01 | U68763.1 | NT | Glycine max putative transcription factor SCOF-1 (scot-1) mRNA, complete cds |
| 10093 | 23131 | 36735 | 2.44 | 3.4E-01 | AJ225084.1 | NT | Homo sapiens FAA gene, exon 16, 17 and 18 |
| 10695 | 23728 | | 0.73 | 3.4E-01 | AE004086.1 | NT | Vibrio cholerae chromosome I, section 4 of 251 of the complete chromosome |
| 11267 | 24336 | | 3.26 | 3.4E-01 | AE000881.1 | NT | Methanobacterium thermoautotrophicum from bases 1018444 to 1028212 (section 87 of 148) of the complete genome |
| 11307 | 24372 | 38014 | 2.1 | 3.4E-01 | P08926 | SWISSPROT | PROBABLE E4 PROTEIN |
| 11350 | 24412 | 38066 | 1.86 | 3.4E-01 | AF045981.1 | NT | Rutillus arcasii cytochrome b (cytb) gene, mitochondrial gene encoding mitochondrial protein, partial cds |
| 11561 | 24616 | 38295 | 1.91 | 3.4E-01 | M25859.1 | NT | Human von Willebrand factor gene, exons 38 and 37 |
| 11591 | 24616 | 38296 | 1.91 | 3.4E-01 | M25858.1 | NT | Human von Willebrand factor gene, exons 36 and 37 |
| 11791 | 24781 | 38478 | 1.68 | 3.4E-01 | AB035507.1 | NT | Rattus norvegicus mRNA for s-galactin/MUC18, complete cds |
| 11817 | 24806 | 38502 | 3.23 | 3.4E-01 | AL101515.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 27 |
| 12078 | 25058 | 38765 | 1.59 | 3.4E-01 | BF061948.1 | EST_HUMAN | 7k69d12x1 NCI CGAP G08 Homo sapiens cDNA clone IMAGE:3480846 3' |
| 12110 | 25090 | 38783 | 1.95 | 3.4E-01 | Q27546 | SWISSPROT | INOSINE-URIDINE PREFERRED NUCLEOSIDE HYDROLASE (U-NUCLEOSIDE HYDROLASE) |
| 12150 | 25120 | | 2.03 | 3.4E-01 | U63604.1 | NT | (PURINE NUCLEOSIDASE) |
| 12284 | 25198 | | 1.55 | 3.4E-01 | Z21621.1 | NT | Citrus variegation virus putative replicase gene, partial cds |
| 12367 | 25912 | | 1.16 | 3.4E-01 | AF254351.1 | NT | S. cerevisiae RIB5 gene encoding Riboflavin synthase |
| 12489 | 26338 | | 10.71 | 3.4E-01 | L26339.1 | NT | Schistosoma haematobium pombe Cwfp (cwf8) gene, complete cds |
| 12517 | 25944 | | 2.98 | 3.4E-01 | BE218652.1 | EST_HUMAN | Human autoantigen mRNA, complete cds |
| 12579 | 26052 | | 1.79 | 3.4E-01 | 8838361 | NT | hva2h08.x1 NCI CGAP Lu24 Homo sapiens cDNA clone IMAGE:3176127 3' similar to contains PTR5.19 |
| 12700 | 25466 | 32023 | 1.36 | 3.4E-01 | AJ297131.1 | NT | PTR5 repetitive element |
| 12954 | 26160 | | 1.98 | 3.4E-01 | AJ288948.1 | NT | Beta vulgaris mitochondrion, complete genome |
| 13055 | 25691 | | 2.26 | 3.4E-01 | AF019413.1 | NT | Mus musculus SIL, MAP_17, CYP_a, SCL & CYP_b genes |
| 15 | 13263 | 26263 | 6.72 | 3.3E-01 | X07690.1 | NT | Clostridium cellulolyticum partial spoIVB gene and spoOA gene, strain ATCC 35319 |
| 108 | 13263 | 26263 | 3.19 | 3.3E-01 | X07690.1 | NT | Homo sapiens HLA class III region containing tenascin X (tenascin-X) gene, partial cds; cytochrome P450 21-hydroxylase (CYP21B), complement component C4 (C4B) G11, helicase (SK12W), RD, complement factor B (Bf), and complement component C2 (C2) genes.> |
| 461 | 13656 | 26894 | 1.41 | 3.3E-01 | AL161545.2 | NT | Rhizobium leguminosarum sym plasmid pRL5J nodX gene |
| 650 | 13836 | 26893 | 1.97 | 3.3E-01 | 7652485 | NT | Rhizobium leguminosarum sym plasmid pRL5J nodX gene |
| 1227 | 14387 | 27450 | 2.67 | 3.3E-01 | Q12446 | SWISSPROT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 46 |
| 1335 | 14492 | 27592 | 3.39 | 3.3E-01 | BF568880.1 | EST_HUMAN | Homo sapiens KIAA1100 protein (KIAA1100), mRNA |
| | | | | | | | PROLINE-RICH PROTEIN LAST17 |
| | | | | | | | 602184016T1 NIH_MGC_42 Homo sapiens cDNA clone IMAGE:4300251 3' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 1636 | 14788 | 27873 | 1.26 | 3.3E-01 | 6753665 | NT | Mus musculus disintegrin 5 (Dign5), mRNA |
| 1674 | 14828 | | 1.43 | 3.3E-01 | 6754477 | NT | Mus musculus kappa B and Res recognition component (Krc), mRNA |
| 1777 | 14826 | | 1.02 | 3.3E-01 | AA332734.1 | EST_HUMAN | EST38722 Embryo, 8 week I Homo sapiens cDNA 5' end |
| 2477 | 15604 | | 6.23 | 3.3E-01 | 4507834 | NT | Homo sapiens uridine monophosphate synthetase (uridine phosphorylase and orotidino-5'-decarboxylase) (UMPS) mRNA |
| 3014 | 18190 | 29215 | 1.61 | 3.3E-01 | AJ251805.1 | NT | Bacteriophage phi-YeO3-12 complete genome |
| 3080 | 18256 | | 1.09 | 3.3E-01 | O02743 | SWISSPROT | INTERLEUKIN-12 ALPHA CHAIN PRECURSOR (IL-12A) (CYTOTOXIC LYMPHOCYTE MATURATION FACTOR 35 KD SUBUNIT) (CLMF P35) |
| 3121 | 16297 | 29311 | 0.78 | 3.3E-01 | AJ007932.2 | NT | Streptomyces argillaceus mitramycin biosynthetic genes |
| 3584 | 16749 | 29768 | 1.04 | 3.3E-01 | AB012922.1 | NT | Homo sapiens MTA1-L1 gene, complete cds |
| 3911 | 17070 | 30068 | 2.72 | 3.3E-01 | O84845 | SWISSPROT | EXODEOXYRIBONUCLEASE V BETA CHAIN |
| 3921 | 17080 | 30076 | 0.82 | 3.3E-01 | P22602 | SWISSPROT | GENOME POLYPROTEIN [CONTAINS: N-TERMINAL PROTEIN (P1); HELPER COMPONENT PROTEINASE (HC-PRO); PROTEIN P3] |
| 4072 | 17228 | 30235 | 1.19 | 3.3E-01 | AL161493.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 10 |
| 4108 | 17262 | 30282 | 1.81 | 3.3E-01 | AF200446.1 | NT | Hypoxylon fragiforme chitin synthase gene, partial cds |
| 4487 | 17927 | | 2.37 | 3.3E-01 | D31662.1 | NT | Rattus norvegicus DNA for regucalcin, partial cds |
| 4812 | 17945 | | 1.91 | 3.3E-01 | A1539114.1 | EST_HUMAN | IP78b12.x1 NCI_CGAP_U3 Homo sapiens cDNA clone IMAGE:2205407 3' similar to gb:X57522 ANTIGEN PEPTIDE TRANSPORTER 1 (HUMAN); |
| 4843 | 17976 | 30966 | 1.02 | 3.3E-01 | M24461.1 | NT | Human pulmonary surfactant-associated protein SP-B (SFTP3) mRNA, complete cds |
| 4860 | 18089 | 31065 | 1.14 | 3.3E-01 | D64003.1 | NT | Synechocystis sp. PCC6803 complete genome, 22/27, 2755703-2868766 |
| 5439 | 18639 | 31617 | 2.55 | 3.3E-01 | X89819.1 | NT | R. norvegicus mRNA for 3'UTR of ubiquitin-like protein |
| 5439 | 18639 | 31618 | 2.55 | 3.3E-01 | X89819.1 | NT | R. norvegicus mRNA for 3'UTR of ubiquitin-like protein |
| 5807 | 18086 | 32411 | 0.63 | 3.3E-01 | BF213873.1 | EST_HUMAN | 601848060F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4078823 5' |
| 8067 | 19249 | 32576 | 1.37 | 3.3E-01 | BE619650.1 | EST_HUMAN | 601472768T1 NIH_MGC_38 Homo sapiens cDNA clone IMAGE:3875753 3' |
| 8067 | 19249 | 32577 | 1.37 | 3.3E-01 | BE619650.1 | EST_HUMAN | 601472768T1 NIH_MGC_38 Homo sapiens cDNA clone IMAGE:3875753 3' |
| 6067 | 18249 | 32684 | 1.29 | 3.3E-01 | P05691 | SWISSPROT | CIRCUMSPOROZOITE PROTEIN (CS) |
| 6162 | 18338 | 32684 | 0.59 | 3.3E-01 | AB034233.1 | NT | Flexibacter littoralis gyrB gene for DNA gyrase B subunit, partial cds |
| 6932 | 20247 | 33681 | 0.59 | 3.3E-01 | AB034233.1 | NT | Flexibacter littoralis gyrB gene for DNA gyrase B subunit, partial cds |
| 7028 | 20165 | 33588 | 4.63 | 3.3E-01 | A1628131.1 | EST_HUMAN | ty84h01.x1 NCI_CGAP_K1d11 Homo sapiens cDNA clone IMAGE:2285609 3' similar to contains Alu repetitive element; contains element L1 repetitive element; |
| 7029 | 20165 | 33587 | 4.63 | 3.3E-01 | A1628131.1 | EST_HUMAN | ty84h01.x1 NCI_CGAP_K1d11 Homo sapiens cDNA clone IMAGE:2285609 3' similar to contains Alu repetitive element; contains element L1 repetitive element; |
| 7961 | 21011 | 34521 | 1.9 | 3.3E-01 | N85146.1 | EST_HUMAN | J2498F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone J2498 5' similar to TEGT |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8769 | 21838 | 35379 | 23.1 | 3.3E-01 | BF683954.1 | EST_HUMAN | 602140372F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4301800 5' |
| 8926 | 22003 | 35544 | 0.73 | 3.3E-01 | BF210322.1 | EST_HUMAN | 601873281F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4087180 5' |
| 9314 | 22390 | 35941 | 0.83 | 3.3E-01 | Q62925 | SWISSPROT | MITOGEN-ACTIVATED PROTEIN KINASE KINASE 1 (MAPK/ERK KINASE 1) (MEK KINASE 1) (MEKK 1) |
| 9678 | 22720 | 36289 | 1.16 | 3.3E-01 | BE828461.1 | EST_HUMAN | OM3-ET0041-180500-187-410 ET0041 Homo sapiens cDNA |
| 9678 | 22720 | 36290 | 1.16 | 3.3E-01 | BE828461.1 | EST_HUMAN | OM3-ET0041-180500-187-410 ET0041 Homo sapiens cDNA |
| 9711 | 22760 | 36330 | 2.9 | 3.3E-01 | N69868.1 | EST_HUMAN | z667h01.s1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:297649 3' |
| 9752 | 22800 | 36260 | 2.81 | 3.3E-01 | BF378745.1 | EST_HUMAN | RG4-TN0077-260800-011-g04 TN0077 Homo sapiens cDNA |
| 10186 | 23233 | 37520 | 2.08 | 3.3E-01 | L41044.1 | NT | Homo sapiens high-mobility group phosphoprotein (HMGP-C) gene, exons 1-3, complete cds |
| 10885 | 23897 | 37520 | 0.74 | 3.3E-01 | AE000631.1 | NT | Helicobacter pylori 26695 section 109 of 134 of the complete genome |
| 10960 | 24041 | 37675 | 3.35 | 3.3E-01 | X63953.1 | NT | D.mauritiana Adh gene |
| 10960 | 24041 | 37676 | 3.35 | 3.3E-01 | X63953.1 | NT | D.mauritiana Adh gene |
| 11278 | 24345 | 37676 | 2.1 | 3.3E-01 | BF528499.1 | EST_HUMAN | 602070602F1 NCI_CGAP_Brm84 Homo sapiens cDNA clone IMAGE:4213585 5' |
| 11607 | 24665 | 38242 | 9.35 | 3.3E-01 | BE219351.1 | EST_HUMAN | hw51g02.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3176978 3' |
| 11626 | 24706 | 38399 | 3.7 | 3.3E-01 | P47953 | SWISSPROT | GALECTIN-3 (GALACTOSE-SPECIFIC LECTIN 3) (MAC-2 ANTIGEN) (IGE-BINDING PROTEIN) (38 KD LECTIN) (CARBOHYDRATE BINDING PROTEIN 36) (CBP 36) (LAMININ-BINDING PROTEIN) (LECTIN L-29) (CBP30) |
| 12018 | 25002 | 38399 | 2.8 | 3.3E-01 | AA806621.1 | EST_HUMAN | cb71g02.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1336850 3' |
| 12036 | 13253 | 28253 | 2.33 | 3.3E-01 | X07890.1 | NT | Rhizobium leguminosarum sym plasmid pRL5J1 nodX gene |
| 12250 | 25190 | 38357 | 1.85 | 3.3E-01 | 6598319 | NT | Homo sapiens aldehyde oxidase 1 (AOX1), mRNA |
| 13044 | 26885 | | 22.03 | 3.3E-01 | AF000002.1 | NT | Pyrococcus horikoshii OT3 genomic DNA, 287001-344000 nt position (2/7) |
| 408 | 13684 | | 2.5 | 3.2E-01 | AF018261.1 | NT | Rattus norvegicus EH domain binding protein Epsin mRNA, complete cds |
| 736 | 13918 | | 0.76 | 3.2E-01 | AL181561.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 61 |
| 1188 | 14350 | 27408 | 23.03 | 3.2E-01 | AF047013.1 | NT | Fusarium poae virus 1 RNA2 putative RNA dependent RNA polymerase gene, complete cds |
| 1311 | 14467 | 27535 | 1.48 | 3.2E-01 | Z60202.1 | NT | P. vulgaris arcs-1 gene |
| 1421 | 14876 | 27648 | 6.74 | 3.2E-01 | Q48824 | SWISSPROT | LACTOSE PERMEASE (LACTOSE-PROTON SYMPORT) (LACTOSE TRANSPORT PROTEIN) |
| 1683 | 14815 | | 1 | 3.2E-01 | AF208730.1 | NT | Arabidopsis thaliana cultivar Columbia RPP13 (RPP13) gene, complete cds |
| 1815 | 14864 | 28057 | 1.3 | 3.2E-01 | Z68041.1 | NT | S. cerevisiae chromosome II reading frame ORF YBR172c |
| 1825 | 14974 | 28069 | 6.42 | 3.2E-01 | AW957194.1 | EST_HUMAN | EST369284 MAGC resequences, MAGD Homo sapiens cDNA |
| 1825 | 14974 | 28070 | 6.42 | 3.2E-01 | AW957194.1 | EST_HUMAN | EST369284 MAGC resequences, MAGD Homo sapiens cDNA |
| 1891 | 16035 | 28142 | 1.25 | 3.2E-01 | AL111655.1 | NT | Botrytis cinerea strain T4 cDNA library under conditions of nitrogen deprivation |
| 2227 | 15361 | 28480 | 3.22 | 3.2E-01 | BF203817.1 | EST_HUMAN | 601868804F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4111512 5' |
| 2808 | 16729 | | 2.83 | 3.2E-01 | 7710079 | NT | Mus musculus Pbx/knotted 1 homeobox (Pbxkx1), mRNA |
| 2774 | 16889 | 29000 | 1.23 | 3.2E-01 | AF080588.1 | NT | Homo sapiens promyelocytic leukemia zinc finger protein (PLZF) gene, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 3898 | 16857 | | 0.76 | 3.2E-01 | D10872.1 | NT | Human h NAT allele 3-2 gene for arylamine N-acetyltransferase |
| 4061 | 17217 | | 0.93 | 3.2E-01 | AL161546.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 46 |
| 4514 | 17653 | 30641 | 1.37 | 3.2E-01 | M18818.1 | NT | Rabbit beta-like globin gene cluster encoding the epsilon, gamma, delta (pseudogene) and beta globin polypeptides, complete cds |
| 4621 | 17768 | 30740 | 1.35 | 3.2E-01 | Q10268 | SWISSPROT | HYPOPHOSPHATASE 1, 7 KD PROTEIN C13G7.04C IN CHROMOSOME 1 PRECURSOR |
| 4860 | 17993 | | 6.89 | 3.2E-01 | BF693617.1 | EST_HUMAN | 60281872F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4246805 5' |
| 5386 | 18588 | 31660 | 2.83 | 3.2E-01 | BE173904.1 | EST_HUMAN | OM0-H10569-060300-269-f10 H10569 Homo sapiens cDNA |
| 6078 | 19280 | 32589 | 1.08 | 3.2E-01 | L27221.1 | NT | Giardia intestinalis pyruvate:ferredoxin oxidoreductase and flanking genes |
| 6433 | 19801 | 32865 | 0.73 | 3.2E-01 | AF016494.1 | NT | Fugu rubripes gamma-aminobutyric acid receptor beta subunit gene, partial cds; 55kd erythrocyte membrane protein (P65), synaptic vesicle-associated integral membrane protein (VAMP-1), procollagen C-proteinase enhancer protein (PCOLCE) genes, complete c2 |
| 6729 | 19885 | 33277 | 0.65 | 3.2E-01 | AV718037.1 | EST_HUMAN | AV718037 FHTA Homo sapiens cDNA clone FHTAABH01 5' |
| 6872 | 20024 | | 1.17 | 3.2E-01 | AB002389.1 | NT | Human mRNA for KIAA0361 gene, KIAA0361 protein |
| 8040 | 21123 | 34643 | 0.52 | 3.2E-01 | AJ277661.1 | NT | Homo sapiens partial LMO1 gene for LIM domain only 1 protein, exon 1 |
| 8365 | 21446 | 34669 | 1.5 | 3.2E-01 | M60266.1 | NT | Rat ISO-atrial natriuretic factor gene, complete cds |
| 8461 | 21542 | 35072 | 0.87 | 3.2E-01 | AJ231001.1 | NT | Rattus norvegicus repeat, map NOS-D12W alpha1 |
| 8562 | 21643 | 35182 | 15.01 | 3.2E-01 | X02508.1 | NT | H. sapiens gene fragment for acetylcholine receptor (AChR) alpha subunit exons 8, 9 and 3' flanking region |
| 8565 | 21648 | 35187 | 14.52 | 3.2E-01 | BF311635.1 | EST_HUMAN | 601897107F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4126633 5' |
| 8656 | 21736 | | 1.24 | 3.2E-01 | AL161574.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 70 |
| 8698 | 21778 | 35310 | 0.69 | 3.2E-01 | BF246771.1 | EST_HUMAN | 601855580F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:4075627 5' |
| 8698 | 21778 | 35311 | 0.69 | 3.2E-01 | BF246771.1 | EST_HUMAN | 601855580F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:4075627 5' |
| 8771 | 21850 | 35391 | 1.14 | 3.2E-01 | AE002016.1 | NT | Deinoceratops radiodurans RT section 152 of 229 of the complete chromosome 1 |
| 8871 | 21950 | 35485 | 0.86 | 3.2E-01 | U51028.1 | NT | Oryzobolus curvicaulis Ig H-chain pseudogene, V-region (VH6-a2) gene, partial cds |
| 8871 | 21950 | 35486 | 0.86 | 3.2E-01 | U51028.1 | NT | Oryzobolus curvicaulis Ig H-chain pseudogene, V-region (VH6-a2) gene, partial cds |
| 9267 | 22344 | 35985 | 0.87 | 3.2E-01 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 9278 | 22354 | | 2.64 | 3.2E-01 | M86511.1 | NT | Human monocytic antigen CD14 (CD14) mRNA, complete cds |
| 9351 | 22426 | 35983 | 0.61 | 3.2E-01 | AF041829.1 | NT | Homo sapiens 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase (PF2K) gene, exons 12 and 13 |
| 9351 | 22426 | 35984 | 0.61 | 3.2E-01 | AF041829.1 | NT | Homo sapiens 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase (PF2K) gene, exons 12 and 13 |
| 10198 | 23236 | 36824 | 4.33 | 3.2E-01 | U44914.1 | NT | Borrelia burgdorferi plasmid cp32-2, erpC and erpD genes, complete cds; and unknown genes |
| 10402 | 23437 | 37044 | 0.62 | 3.2E-01 | BE326230.1 | EST_HUMAN | h169705.x1 NCL CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3181569 3' |
| 10618 | 23553 | | 3.94 | 3.2E-01 | AB011398.1 | NT | Homo sapiens gene for AF-6, complete cds |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 10905 | 23988 | 37620 | 3.05 | 3.2E-01 | T06813.1 | EST_HUMAN | ES104702 Fetal brain, Striatum (cat#939206) Homo sapiens cDNA clone HFBZ21 |
| 12289 | 26083 | | 3.11 | 3.2E-01 | L07288.1 | NT | Drosophila melanogaster laminin A (Lam-A) mRNA, complete cds |
| 12861 | 25572 | | 3.28 | 3.2E-01 | O83217 | SWISSPROT | ELONGATION FACTOR TU (EF-TU) |
| 12969 | 25891 | | 2.2 | 3.2E-01 | AF157625.1 | NT | Bos taurus inositol 1,4,5-trisphosphate receptor type I mRNA, complete cds |
| 13018 | 25668 | | 2.07 | 3.2E-01 | L39874.1 | NT | Homo sapiens deoxydiphosphate deaminase gene, complete cds |
| 13089 | 26129 | 31545 | 1.24 | 3.2E-01 | BE385776.1 | EST_HUMAN | 601275480F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3616746 5' |
| 2736 | 15853 | 28967 | 3.39 | 3.1E-01 | R18051.1 | EST_HUMAN | ye0108.r1 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:125051 5' similar to gb:U64241 QM PROTEIN (HUMAN); |
| 2782 | 16001 | 28985 | 3.77 | 3.1E-01 | 7661971 | NT | Homo sapiens KIAA0174 gene product (KIAA0174), mRNA |
| 2782 | 16001 | 28988 | 3.77 | 3.1E-01 | 7661971 | NT | Homo sapiens KIAA0174 gene product (KIAA0174), mRNA |
| 2920 | 16098 | | 1.28 | 3.1E-01 | AW628038.1 | EST_HUMAN | h46108.x1 Soares_NFL_I_GBC_S1 Homo sapiens cDNA clone IMAGE:2975391 3' |
| 3242 | 16416 | | 3.61 | 3.1E-01 | AB029069.1 | NT | Mus musculus gene for Ser/Thr kinase KIAMIRE, exon 6 |
| 4010 | 17173 | 30181 | 0.84 | 3.1E-01 | AJ251586.1 | NT | Daucus carota mRNA for transcription factor E2F (E2F gene) |
| 5077 | 18205 | 31177 | 0.7 | 3.1E-01 | AE003984.1 | NT | Xylella fastidiosa, section 130 of 228 of the complete genome |
| 5695 | 18790 | 31838 | 9.24 | 3.1E-01 | AF176111.1 | NT | Homo sapiens hepatocyte nuclear factor-3 alpha (HNF3A) gene, exon 1 |
| 5717 | 18910 | 32205 | 0.7 | 3.1E-01 | P44132 | SWISSPROT | HYPOTHETICAL PROTEIN H1236 |
| 5718 | 18911 | 32206 | 0.79 | 3.1E-01 | Z74883.1 | NT | S.cerevisiae chromosome XV reading frame ORF YOL141w |
| 5729 | 18922 | | 0.83 | 3.1E-01 | Y13278.1 | NT | Mus musculus mRNA for polycystin |
| 5892 | 19080 | 32380 | 2.65 | 3.1E-01 | AF184122.1 | NT | Homo sapiens filamin 2 (FLN2) gene, exons 10 through 22 |
| 5895 | 19755 | 33141 | 1.3 | 3.1E-01 | AW683549.1 | EST_HUMAN | RC3-HN0001-310300-011-b04 HN0001 Homo sapiens cDNA |
| 5883 | 19822 | 33209 | 0.96 | 3.1E-01 | A1284458.1 | EST_HUMAN | q189001.x1 NCL_CGAP_C08 Homo sapiens cDNA clone IMAGE:1874889 3' |
| 5821 | 19974 | 33382 | 0.79 | 3.1E-01 | X71887.1 | NT | H. sapiens gene for immunoglobulin kappa light chain variable region A8 and A9 |
| 5905 | 20220 | | 0.69 | 3.1E-01 | AW377354.1 | EST_HUMAN | MR2-CT0222-281099-005-H05 CT0222 Homo sapiens cDNA |
| 7109 | 25801 | 31481 | 2.32 | 3.1E-01 | BE737392.1 | EST_HUMAN | 601306121F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3640420 5' |
| 7856 | 20911 | 34416 | 0.7 | 3.1E-01 | 4885390 | NT | Homo sapiens hyaluronan synthase 2 (HAS2), mRNA |
| 8849 | 21828 | 35487 | 0.84 | 3.1E-01 | R45318.1 | EST_HUMAN | Y4601.s1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:35639 3' |
| 10108 | 23144 | 36742 | 0.88 | 3.1E-01 | 6679322 | NT | Mus musculus phosphatidylinositol-4-phosphate 6-kinase, type 1 gamma (Pip6k1c), mRNA |
| 10272 | 23307 | 36903 | 1.04 | 3.1E-01 | BF686839.1 | EST_HUMAN | 602124743F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4281611 5' |
| 10272 | 23307 | 36904 | 1.04 | 3.1E-01 | BF686839.1 | EST_HUMAN | 602124743F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4281611 5' |
| 10334 | 23369 | 36979 | 1.68 | 3.1E-01 | A1244001.1 | EST_HUMAN | q181e11.x1 NCL_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1863980 3' similar to gb:S56700 HYDROXYMETHYLGLUTARYL-COA LYASE PRECURSOR (HUMAN); |
| 10510 | 23545 | | 0.98 | 3.1E-01 | T65325.1 | EST_HUMAN | y647h08.s1 Striatum fetal spleen (#937205) Homo sapiens cDNA clone IMAGE:74387 3' similar to similar to gb:M91036 mae2 HEMOGLOBIN GAMMA-A AND GAMMA-G CHAINS (HUMAN) |
| 11078 | 24151 | 37789 | 1.84 | 3.1E-01 | BF216117.1 | EST_HUMAN | 601883592F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4095814 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 11474 | 24533 | 38203 | 1.62 | 3.1E-01 | AW074910.1 | EST_HUMAN | xs62g09.x1 NCJ_CGAP_HSC2 Homo sapiens cDNA clone IMAGE:2571424 3' |
| 11527 | 24818 | 39507 | 2.08 | 3.1E-01 | 7882281 | NT | Homo sapiens KIAA0764 gene product (KIAA0764), mRNA |
| 11828 | 24817 | 38508 | 1.67 | 3.1E-01 | R55735.1 | EST_HUMAN | y88505.r1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:40722 5' similar to contains Alu repetitive element |
| 12123 | 25103 | | 1.3 | 3.1E-01 | AF195953.1 | NT | Homo sapiens membrane-bound aminopeptidase P (XNPEP2) gene, complete cds |
| 12418 | 26298 | | 1.22 | 3.1E-01 | AF294308.1 | NT | Anolis opalinus isolate QS NADH dehydrogenase subunit 2 (ND2) gene, complete cds; mitochondrial gene for mitochondrial product |
| 12455 | 26319 | | 1.73 | 3.1E-01 | AF304162.1 | NT | Silvestrodon vitreum 40S ribosomal protein S11 mRNA, partial cds |
| 12813 | 26412 | | 3.73 | 3.1E-01 | AF195953.1 | NT | Homo sapiens membrane-bound aminopeptidase P (XNPEP2) gene, complete cds |
| 13028 | 26577 | | 3.82 | 3.1E-01 | AF198770.1 | NT | Homo sapiens transcription factor IGHM enhancer 3, JM11 protein, JM4 protein, JM5 protein, T64 protein, JM10 protein, A4 differentiation-dependent protein, triple LIM domain protein 6, and synapophysin genes, complete cds; and L-type calcium channel $\alpha 2$ |
| 13068 | 26123 | | 1.22 | 3.1E-01 | 10946823 | NT | Mus musculus peptidoglycan recognition protein-like (Pglyrp-pending), mRNA |
| 74 | 15979 | 26336 | 1.65 | 3.0E-01 | 6755083 | NT | Mus musculus protein kinase C, epsilon (Pkc ϵ), mRNA |
| 264 | 13483 | 26515 | 11.52 | 3.0E-01 | AJ271735.1 | NT | Homo sapiens Xq pseudautosomal region: segment 1/2 |
| 1251 | 14410 | 27472 | 2.35 | 3.0E-01 | AW300400.1 | EST_HUMAN | xs63f08.x1 NCJ_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2774343 3' |
| 1837 | 14690 | 27789 | 5.77 | 3.0E-01 | AJ008755.1 | NT | Balanoptera physalus gene encoding atfal netretic peptide |
| 1838 | 14984 | 28084 | 1.2 | 3.0E-01 | X99082.1 | NT | A. Immersus putative gene encoding integrase, Mars2 (RF) |
| 3069 | 16243 | | 0.8 | 3.0E-01 | AB008877.1 | NT | Bos taurus mRNA for UDP-glucuronosyltransferase, complete cds |
| 3283 | 16437 | | 1.33 | 3.0E-01 | AB030491.1 | NT | Corynebacterium sp. ALY-1 α -F/G gene for polygluturonate lyase, complete cds |
| 3968 | 17123 | 30129 | 1.58 | 3.0E-01 | AW817785.1 | EST_HUMAN | PM1-ST0262-261198-001-g01 ST0282 Homo sapiens cDNA |
| 4882 | 17237 | 30243 | 1.16 | 3.0E-01 | AJ271736.1 | NT | Homo sapiens Xq pseudautosomal region: segment 2/2 |
| 4936 | 17772 | 30752 | 1.79 | 3.0E-01 | AJ008756.1 | NT | Balanoptera physalus gene encoding atfal netretic peptide |
| 5258 | 18649 | 28685 | 2.33 | 3.0E-01 | P23825 | SWISSPROT | GATA BINDING FACTOR-3 (TRANSCRIPTION FACTOR NF-E1C) (GATA-3) |
| 5487 | 18667 | 31646 | 6.1 | 3.0E-01 | BE741628.1 | EST_HUMAN | 601594960F-1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3948734 6' |
| 5548 | 18745 | 31780 | 0.64 | 3.0E-01 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 5552 | 18749 | 31785 | 1 | 3.0E-01 | AF229247.1 | NT | Canis lupus familiaris hemagglutinin gene, complete cds |
| 5821 | 18815 | 31883 | 4.01 | 3.0E-01 | BE693576.1 | EST_HUMAN | RC9-BT0333-180700-111-a03 BT0333 Homo sapiens cDNA |
| 5821 | 18815 | 31884 | 4.01 | 3.0E-01 | BE693575.1 | EST_HUMAN | RC9-BT0333-180700-111-a03 BT0333 Homo sapiens cDNA |
| 5858 | 18852 | 32135 | 3.87 | 3.0E-01 | U01247.1 | NT | Mus musculus 129/ev Clara cell 70 kd protein (mCC10) gene, complete cds |
| 6970 | 20198 | 33624 | 2.82 | 3.0E-01 | D16313.1 | NT | Mouse cyclophilin 15 gene, complete cds |
| 6989 | 18518 | 31511 | 0.78 | 3.0E-01 | U02369.1 | NT | Strongylocentrotus purpuratus 34/67 kDa laminin-binding protein mRNA, partial cds |
| 7095 | 20118 | 33532 | 1.15 | 3.0E-01 | AF229247.1 | NT | Canis lupus familiaris hemagglutinin gene, complete cds |

Page 76 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 7270 | 20353 | 33806 | 0.98 | 3.0E-01 | AL163206.2 | NT | Homo sapiens chromosome 21 segment HS21C006 |
| 7481 | 20559 | 34028 | 4.3 | 3.0E-01 | 10947007 | NT | Mus musculus midkolin (Midn-pending), mRNA |
| 7870 | 20733 | 34214 | 1.51 | 3.0E-01 | AF071810.1 | NT | Streptococcus pneumoniae strain DBL6 PapA (papA) gene, partial cds |
| 8111 | 21193 | 34713 | 1.34 | 3.0E-01 | AE001755.1 | NT | Thermobga maritima section 87 of 139 of the complete genome |
| 8568 | 21649 | | 3.1 | 3.0E-01 | 9910161 | NT | Mus musculus C-type (calcium dependent, carbohydrate recognition domain) lectin, superfamily member 9 (Clec5f9), mRNA |
| 8858 | 21738 | 35279 | 0.48 | 3.0E-01 | Z70200.1 | NT | H. sapiens gene for U5 snRNP-specific 200kD protein |
| 8871 | 21751 | 35288 | 1.23 | 3.0E-01 | BE666083.1 | EST_HUMAN | 60133079F1 NIH_MGC_63 Homo sapiens cDNA clone IMAGE:3681694 5' |
| 9029 | 22108 | 35649 | 0.69 | 3.0E-01 | AF141876.1 | NT | Streptomyces sulfonolactans isopenicillin N synthase (pcbC) gene, partial cds |
| 9072 | 22151 | | 0.82 | 3.0E-01 | 7681685 | NT | Homo sapiens DKFZP689M0122 protein (DKFZP689M0122), mRNA |
| 9419 | 22493 | 36059 | 1.09 | 3.0E-01 | AF220507.1 | NT | Anabaena PCC7120 cytosine-specific DNA methyltransferase (dmnB) gene, complete cds, putative |
| 9773 | 22813 | 36391 | 0.64 | 3.0E-01 | P76389 | SWISSPROT | antranilate phosphoribosyltransferase gene, partial cds; and unknown gene |
| 9827 | 22867 | | 0.46 | 3.0E-01 | D90904.1 | NT | HYPOTHETICAL 59.5 KD PROTEIN IN WZA-ASMA INTERGENIC REGION |
| 10173 | 23210 | 36803 | 0.84 | 3.0E-01 | BF574612.1 | EST_HUMAN | Synechococcus sp. PCC6803 complete genome, 8/27, 630555-781448 |
| 10346 | 23381 | 36992 | 0.45 | 3.0E-01 | AF152598.3 | NT | 602133271F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4288336 5' |
| 10346 | 23391 | 36993 | 0.45 | 3.0E-01 | AF152598.3 | NT | Actinobacillus actinomycetocombitans Tada (tada), TadaB (tadB), TadaC (tadC), TadaD (tadD), Tade (tade), TadeF (tadF), and TadeG (tadG) genes, complete cds |
| 10808 | 23640 | 37248 | 0.8 | 3.0E-01 | AW118111.1 | EST_HUMAN | Actinobacillus actinomycetocombitans Tada (tada), TadaB (tadB), TadaC (tadC), TadaD (tadD), Tade (tade), TadeF (tadF), and TadeG (tadG) genes, complete cds |
| 10808 | 23642 | 37250 | 2.51 | 3.0E-01 | AB030231.1 | NT | xe03d10.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2606035 3' |
| 10829 | 23683 | 37271 | 0.76 | 3.0E-01 | BF683841.1 | EST_HUMAN | Aspergillus oryzae btpA gene for ER chaperone BIP, complete cds |
| 10829 | 23683 | 37272 | 0.78 | 3.0E-01 | BF683841.1 | EST_HUMAN | 602140133F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4301097 5' |
| 12087 | 25045 | 38755 | 2.18 | 3.0E-01 | H51029.1 | EST_HUMAN | 602140133F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4301097 5' |
| 12087 | 25048 | 38756 | 2.16 | 3.0E-01 | H51029.1 | EST_HUMAN | yp84b10.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:164107 5' |
| 12470 | 25324 | | 1.3 | 3.0E-01 | P54680 | SWISSPROT | yp84b10.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:164107 5' |
| 12731 | 26062 | | 1.88 | 3.0E-01 | AJ297831.1 | NT | PONCULIN PRECURSOR |
| 13081 | 26121 | | 4.49 | 3.0E-01 | 6877768 | NT | Rattus norvegicus mRNA for glyceraldehyde-3-phosphate dehydrogenase type 2 (gapdh-2 gene) |
| 1771 | 14820 | | 0.94 | 2.9E-01 | AJ249895.1 | NT | Mus musculus ribosa 5-phosphate isomerase A (Rpia), mRNA |
| 1830 | 15073 | 28176 | 0.94 | 2.9E-01 | 5174502 | NT | Mus musculus mas proto-oncogene and lgr2r gene for insulin-like growth factor type 2 and L41ps and Au76 pseudogene |
| 2080 | 16220 | 28940 | 2.36 | 2.9E-01 | AE000736.1 | NT | Homo sapiens membrane component, chromosome 11, surface marker 1 (M11S1) mRNA |
| 2322 | 16454 | 28585 | 1.01 | 2.9E-01 | AF222718.1 | NT | Aquifex aeolicus section 68 of 109 of the complete genome |
| 3253 | 16427 | 28445 | 0.96 | 2.9E-01 | AF078111.1 | NT | Chrysididymus eynoldensis mitochondrion, complete genome |
| | | | | | | | Xenopus laevis transcription factor E2F mRNA, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Description |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 3323 | 16498 | 29513 | 2.88 | 2.9E-01 | AW754239.1 | EST_HUMAN | PM1-CT0326-171289-001-112 CT0326 Homo sapiens cDNA |
| 3323 | 16498 | 29514 | 2.88 | 2.9E-01 | AW754239.1 | EST_HUMAN | PM1-CT0326-171289-001-112 CT0326 Homo sapiens cDNA |
| 4003 | 17160 | 30169 | 1.12 | 2.9E-01 | AI910838.1 | EST_HUMAN | IP21e11.x1 NCL CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2188412 3' similar to gb:D15050 NIL-2-A ZINC FINGER PROTEIN (HUMAN) contains element L1 repetitive element; |
| 4045 | 17201 | 30212 | 0.61 | 2.9E-01 | AI769472.1 | EST_HUMAN | W14d10.x1 NCL CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2402808 3' similar to WP:C34F6.7 CE15876; |
| 4189 | 17333 | 30325 | 0.61 | 2.9E-01 | AB016426.1 | NT | Cavia porcellus mRNA for glutathione S-transferase, complete cds |
| 4185 | 17345 | | 0.79 | 2.9E-01 | AW002302.1 | EST_HUMAN | wf02f10.x1 NCL CGAP_GCB8 Homo sapiens cDNA clone IMAGE:2480395 3' |
| 4808 | 17745 | 30724 | 0.98 | 2.9E-01 | AA284468.1 | EST_HUMAN | z557d12.r1 NCL CGAP_GCB1 Homo sapiens cDNA clone IMAGE:701591 5' similar to contains Alu repetitive element; |
| 4809 | 17940 | | 0.73 | 2.9E-01 | AL163207.2 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 4957 | 18087 | 31083 | 0.59 | 2.9E-01 | AB018029.1 | NT | Mus musculus gene, complete cds, similar to EXLM1 |
| 5222 | 18344 | | 0.99 | 2.9E-01 | AI670899.1 | EST_HUMAN | w06f03.x1 NCL CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2287308 3' similar to contains L1 L2 L1 repetitive element; |
| 5320 | 18087 | 31063 | 0.65 | 2.9E-01 | AB018029.1 | NT | Mus musculus gene, complete cds, similar to EXLM1 |
| 6372 | 18575 | | 1.59 | 2.9E-01 | R37485.1 | EST_HUMAN | yf77e12.s1 Soares Infant brain 1N1B Homo sapiens cDNA clone IMAGE:28281 3' |
| 5511 | 20137 | 33555 | 0.98 | 2.9E-01 | AF321001.1 | NT | Suaeda maritima subsp. salsa S-adenosylmethionine synthetase 2 mRNA, complete cds |
| 5884 | 18073 | 32381 | 5.27 | 2.9E-01 | X58098.1 | NT | B subtilis levanase operon levD, levE, levF, levG and sacC (partial) genes for fructose phosphotransferase system polypeptides P18,18,28,30 and levanase |
| 5884 | 18073 | 32382 | 5.27 | 2.9E-01 | X58098.1 | NT | B subtilis levanase operon levD, levE, levF, levG and sacC (partial) genes for fructose phosphotransferase system polypeptides P18,18,28,30 and levanase |
| 5887 | 18085 | 32397 | 5.53 | 2.9E-01 | 6879662 | NT | system polypeptides P18,18,28,30 and levanase |
| 6181 | 18357 | 32705 | 1.55 | 2.9E-01 | AA418145.1 | EST_HUMAN | Mus musculus Eph receptor A8 (Epha8), mRNA |
| 6411 | 19580 | 32941 | 1.07 | 2.9E-01 | AI787128.1 | EST_HUMAN | z97b12.r1 Soares NIHMPUL S1 Homo sapiens cDNA clone IMAGE:767711 5' |
| 6455 | 19522 | 32986 | 2.22 | 2.9E-01 | U03420.1 | NT | w027c05.x1 NCL CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2342312 3' similar to contains L1 L1 L1 repetitive element; |
| 7001 | 20137 | 33555 | 0.71 | 2.9E-01 | AF321001.1 | NT | Bos taurus myosin I mRNA, complete cds |
| 7126 | 18552 | 31468 | 1.4 | 2.9E-01 | AF142328.1 | NT | Suaeda maritima subsp. salsa S-adenosylmethionine synthetase 2 mRNA, complete cds |
| 7246 | 20328 | 33773 | 3.11 | 2.9E-01 | Q04399 | SWISSPROT | Mus musculus Fliin protein (Fliin) gene, complete cds; and Ligih protein (Ligih) gene, partial cds |
| | | | | | | | PUTATIVE MULTICOPPER OXIDASE YDR506C |
| | | | | | | | Mus musculus major histocompatibility locus class II region; Fas-binding protein Daxx (DAXX) gene, partial cds; Bng1 (BING1), tapasin (tapasin), RagGDS-like factor (RLF), KE2 (KE2), BING4 (BING4), beta1, 3- galactosyl transferase (beta1,3-galactosyl tr> |
| 7310 | 20382 | 33852 | 1.54 | 2.9E-01 | AF100956.1 | NT | |
| 8104 | 21186 | 34705 | 1.61 | 2.9E-01 | BE540422.1 | EST_HUMAN | 601065830F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3452287 5' |
| 8104 | 21186 | 34706 | 1.61 | 2.9E-01 | BE540422.1 | EST_HUMAN | 601065830F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3452287 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8343 | 21424 | 34948 | 0.64 | 2.9E-01 | AJ237937.1 | NT | Bos taurus partial stat5A gene, exons 5-19 |
| 8343 | 21424 | 34950 | 0.64 | 2.9E-01 | AJ237937.1 | NT | Bos taurus partial stat5A gene, exons 5-19 |
| 8358 | 21437 | | 0.75 | 2.9E-01 | BF217743.1 | EST_HUMAN | 601882570F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4085113 5' |
| | | | | | | | Buchnera aphidicola plesmid pLec isolate M1 2-isopropylmalate synthase (leuA) gene, partial cds; 3-isopropylmalate dehydrogenase (leuB) gene, complete cds; and isopropylmalate dehydratase subunit (leuC) gene, partial cds |
| 8534 | 21615 | | 0.53 | 2.9E-01 | AF197466.1 | NT | |
| 8784 | 21873 | 35412 | 0.82 | 2.9E-01 | AU160910.1 | EST_HUMAN | AU160910 NT2RP2 Homo sapiens cDNA clone NT2RP 2003801 3' |
| 9125 | 22204 | 35747 | 1.09 | 2.8E-01 | AF225908.1 | NT | Arabidopsis thaliana sulfonyleurea receptor-like protein mRNA, complete cds |
| 9233 | 22311 | 35853 | 0.81 | 2.9E-01 | M22452.1 | NT | Baboon lymphocyte homing/adhesion receptor mRNA, complete cds |
| 9447 | 22563 | 36125 | 0.86 | 2.9E-01 | AJ248287.1 | NT | Pyrococcus abyssi complete genome; segment 5/6 |
| 9447 | 22563 | 36128 | 0.86 | 2.9E-01 | AJ248287.1 | NT | Pyrococcus abyssi complete genome; segment 5/6 |
| 10405 | 23440 | 37047 | 0.46 | 2.9E-01 | AW294100.1 | EST_HUMAN | UI-H-BI2-ahg-B-02-Q-UI.s1 NCI_CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2728714 3' |
| 10405 | 23440 | 37048 | 0.40 | 2.9E-01 | AW294100.1 | EST_HUMAN | UI-H-BI2-ahg-B-02-Q-UI.s1 NCI_CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2728714 3' |
| 11433 | 24205 | 37830 | 1.84 | 2.9E-01 | AF128843.1 | NT | Trypanosoma cruzi stage-specific surface glycoprotein gp82 (gp82) mRNA, partial cds |
| 11433 | 24494 | 38169 | 1.78 | 2.9E-01 | V01394.1 | NT | Torpedo californica mRNA encoding acetylcholine receptor gamma subunit |
| 11433 | 24494 | 38160 | 1.78 | 2.9E-01 | V01394.1 | NT | Torpedo californica mRNA encoding acetylcholine receptor gamma subunit |
| | | | | | | | ny65h02.s1 NCI_CGAP_P12 Homo sapiens cDNA clone IMAGE:1273779 similar to contains LTR8.12 LTR8 repetitive element |
| 11881 | 24869 | 38568 | 2.71 | 2.9E-01 | AA635373.1 | EST_HUMAN | Campylobacter jejuni NCT C11168 complete genome; segment 5/6 |
| 11886 | 24874 | 38571 | 3.12 | 2.8E-01 | AL139078.2 | NT | Rattus norvegicus activin receptor-like kinase 7 (ALK7) mRNA, complete cds |
| 11900 | 24888 | 38587 | 2.09 | 2.9E-01 | U35025.1 | NT | Rattus norvegicus activin receptor-like kinase 7 (ALK7) mRNA, complete cds |
| 11900 | 24888 | 38588 | 2.09 | 2.9E-01 | U35025.1 | NT | wz88f05.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2585921 3' similar to contains element |
| | | | | | | | MER29 repetitive element |
| 12677 | 25452 | 32017 | 1.85 | 2.9E-01 | AW006671.1 | EST_HUMAN | D. melanogaster: part of the 44D cuticle gene cluster encoding cuticle gene 1 |
| 12774 | 25516 | | 1.89 | 2.9E-01 | V00202.1 | NT | Homo sapiens TNF- α -inducible RNA binding protein (TIRP) gene, complete cds |
| 12777 | 25518 | 32001 | 2.23 | 2.9E-01 | AF092453.1 | NT | Chlamydomonas reinhardtii mRNA for nitrite reductase structural locus |
| 13126 | 25734 | 31944 | 1.24 | 2.9E-01 | Y08937.1 | NT | Chlamydomonas reinhardtii mRNA for nitrite reductase structural locus |
| 13126 | 25734 | 31945 | 1.24 | 2.9E-01 | Y08937.1 | NT | Callinectes sapidus cadmium-inducible metallothionein CdMT-1 mRNA, complete cds |
| 13204 | 25785 | 31919 | 1.4 | 2.9E-01 | AF200418.1 | NT | Rattus norvegicus A-kinase anchoring protein AKAP130 mRNA, complete cds |
| 582 | 13774 | | 2.04 | 2.8E-01 | U67136.1 | NT | Prunus dwarf virus movement protein, complete cds; coat protein, complete cds |
| 587 | 13778 | | 1.98 | 2.8E-01 | L28145.1 | NT | Guinea guinea oocyte maturation factor Mos (c-mos) gene, partial cds |
| 1107 | 14272 | 27331 | 3.34 | 2.8E-01 | AF168050.1 | NT | 601148733F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3163888 6' |
| 1308 | 14482 | 27529 | 2.19 | 2.8E-01 | BE313442.1 | EST_HUMAN | 601148733F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3163888 6' |
| 1306 | 14462 | 27530 | 2.19 | 2.8E-01 | BE313442.1 | EST_HUMAN | Human mRNA for serine/threonine protein kinase, complete cds |
| 1318 | 14475 | 27541 | 1.2 | 2.8E-01 | D86550.1 | NT | |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 1768 | 14915 | 28011 | 1.87 | 2.8E-01 | AW86020.1 | EST_HUMAN | QV1-CT0384-120200-065-b05 CT0384 Homo sapiens cDNA |
| 2069 | 15210 | 28328 | 1.49 | 2.8E-01 | AL047620.1 | EST_HUMAN | DKFZ58812321_r1 588 (synonym: huter1) Homo sapiens cDNA clone DKFZ58812321 |
| 2200 | 15335 | 28402 | 1.51 | 2.8E-01 | AW511195.1 | EST_HUMAN | hd44b03.x1 Sceres_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2912333 3' |
| 2542 | 15597 | 28791 | 2.98 | 2.8E-01 | AE000494.1 | NT | Escherichia coli K-12 MG1655 section 384 of 400 of the complete genome |
| 2542 | 15587 | 28792 | 2.98 | 2.8E-01 | AE000494.1 | NT | Escherichia coli K-12 MG1655 section 384 of 400 of the complete genome |
| 2612 | 15736 | | 2.95 | 2.8E-01 | AL161655.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 65 |
| 2730 | 15848 | 28958 | 1.16 | 2.8E-01 | AB020975.1 | NT | Arabidopsis thaliana mRNA for lipoxygenase, complete cds |
| 3035 | 16211 | | 1.37 | 2.8E-01 | AF179480.1 | NT | Toxoplasma gondii 80kDa heat-shock protein (HSP80) mRNA, partial cds |
| 3036 | 16212 | 29234 | 2.62 | 2.8E-01 | Z14037.1 | NT | B. taurus microsatellite (ETH121) |
| 3036 | 16212 | 29235 | 2.52 | 2.8E-01 | Z14037.1 | NT | B. taurus microsatellite (ETH121) |
| 3488 | 16633 | 28652 | 1.05 | 2.8E-01 | AP000004.1 | NT | Pyrococcus horikoshii OT3 genomic DNA, 77001-994000 nt, position (47) |
| 4103 | 17257 | 30267 | 1.67 | 2.8E-01 | AE001180.1 | NT | Borrelia burgdorferi (section 68 of 70) of the complete genome |
| 4240 | 17386 | | 0.8 | 2.8E-01 | AE004450.1 | NT | Pseudomonas aeruginosa PA01, codon 11 of 529 of the complete genome |
| 4316 | 17458 | | 2.17 | 2.8E-01 | AI090868.1 | EST_HUMAN | ov44g10.x1 Sceres_testis_NHT Homo sapiens cDNA clone IMAGE:1840228 3' similar to contains Alu repetitive element; contains element MER22 repetitive element; |
| 4582 | 17719 | 30702 | 2 | 2.8E-01 | P13615 | SWISSPROT | RNA POLYMERASE BETA SUBUNIT (LARGE STRUCTURAL PROTEIN) (L PROTEIN) |
| 4944 | 18074 | 31049 | 0.92 | 2.8E-01 | AF076238.1 | NT | Hepatitis Q virus isolate 60 (SZNAE12) polypeptide precursor, gene, partial cds |
| 4950 | 18080 | 31056 | 4.95 | 2.8E-01 | AF030154.1 | NT | Bovine adenovirus 3 complete genome |
| 4984 | 18113 | 31090 | 1.52 | 2.8E-01 | BF528189.1 | EST_HUMAN | 602042801F1 NCI_CGAP_Bim67 Homo sapiens cDNA clone IMAGE:4180129 5' |
| 5006 | 18135 | 31109 | 3.66 | 2.8E-01 | AI272699.1 | EST_HUMAN | q59c11.x1 Sceres_NHTMPu_S1 Homo sapiens cDNA clone IMAGE:1876628 3' similar to contains Alu repetitive element; contains element LTRB repetitive element; |
| 5318 | 18473 | 31404 | 0.61 | 2.8E-01 | X60767.1 | NT | Mouse Kv2.3 gene for potassium channel, protein, exon 2 |
| 5426 | 18504 | 31602 | 23.61 | 2.8E-01 | AA348997.1 | EST_HUMAN | EST57072 Infant brain Homo sapiens cDNA 5' end |
| 5723 | 18916 | 32211 | 2.57 | 2.8E-01 | AB016825.1 | NT | Homo sapiens OCTN2 gene, complete cds |
| 5938 | 19124 | | 0.93 | 2.8E-01 | AW692593.1 | EST_HUMAN | CM1-BN0024-150200-118-g12 BN0024 Homo sapiens cDNA |
| 6042 | 19225 | 32548 | 0.66 | 2.8E-01 | AA765296.1 | EST_HUMAN | es01d08.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1303691 3' similar to gb:M34539 FK608-BINDING PROTEIN (HUMAN); |
| 6059 | 19241 | | 0.64 | 2.8E-01 | AA404576.1 | EST_HUMAN | z141f01.r1 Sceres ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:724921 5' similar to contains Alu repetitive element; |
| 6305 | 19212 | | 0.67 | 2.8E-01 | M36668.1 | NT | Bovine 680 bp repeated unit of 1,723 satellite DNA |
| 6347 | 19517 | 32874 | 1.65 | 2.8E-01 | AF003124.1 | NT | Mesembryanthemum crystallinum fructose-bisphosphate aldolase mRNA, complete cds |
| 6347 | 19517 | 32876 | 1.65 | 2.8E-01 | AF003124.1 | NT | Mesembryanthemum crystallinum fructose-bisphosphate aldolase mRNA, complete cds |
| 6870 | 20022 | 33432 | 7.84 | 2.8E-01 | BF511215.1 | EST_HUMAN | UI-HB14-act-F04-U1.at NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3086182 3' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 7145 | 20280 | 33721 | 0.64 | 2.8E-01 | U05300.1 | NT | Orthomyx heterodorus cytochrome b (cyb) gene, mitochondrial gene encoding mitochondrial protein, complete cds |
| 7599 | 20889 | | 1.14 | 2.8E-01 | U05633.1 | NT | Mareilea quadricolor ribulose-1,5-bisphosphate carboxylase/oxygenase large subunit (rbcl) gene, chloroplast gene encoding chloroplast protein, partial cds |
| 8284 | 21366 | 34884 | 1.31 | 2.8E-01 | A1346126.1 | EST_HUMAN | qp48h01.x1 NCL CGAP_C68 Homo sapiens cDNA clone IMAGE:1826289 3' similar to gb:X06323_cd1 |
| 8284 | 21366 | 34886 | 1.31 | 2.8E-01 | A1346126.1 | EST_HUMAN | MITOCHONDRIAL 60S RIBOSOMAL PROTEIN L3 (HUMAN); |
| 8404 | 21485 | 35014 | 2.31 | 2.8E-01 | U51688.1 | EST_HUMAN | qp48h01.x1 NCL CGAP_C68 Homo sapiens cDNA clone IMAGE:1826289 3' similar to gb:X06323_cd1 |
| | | | | | | NT | MITOCHONDRIAL 60S RIBOSOMAL PROTEIN L3 (HUMAN); |
| 8712 | 21792 | 35328 | 0.8 | 2.8E-01 | AA911828.1 | EST_HUMAN | Homo sapiens lanosterol 14-alpha demethylase cytochrome P450 (CYP51) gene, exon 5 |
| 8789 | 21868 | | 7.72 | 2.8E-01 | BF347847.1 | EST_HUMAN | cd02h05.s1 NCL CGAP_C612 Homo sapiens cDNA clone IMAGE:1419893 3' similar to gb:M87789 IQ |
| 8868 | 22628 | 36100 | 1.14 | 2.8E-01 | U17251.1 | EST_HUMAN | GAMMA-1 CHAIN C REGION (HUMAN); |
| | | | 1.16 | 2.8E-01 | L13654.1 | NT | 602022987F1 NCL CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4198525 5' |
| 10092 | 23130 | 36733 | 0.98 | 2.8E-01 | AF132728.1 | NT | Neurospora crassa negative regulator sulfur control-2 (scn-2) gene, complete cds |
| 10092 | 23130 | 36734 | 0.98 | 2.8E-01 | AF132728.1 | NT | Lycopodium obscurum peroxidase (TPX1) mRNA, complete cds |
| 10152 | 23189 | 36786 | 0.46 | 2.8E-01 | AE001310.1 | NT | Escherichia coli translocated histidin receptor Tir (tir) gene, complete cds |
| | | | | | | NT | Escherichia coli translocated histidin receptor Tir (tir) gene, complete cds |
| 10158 | 23193 | 36789 | 0.7 | 2.8E-01 | AF294393.1 | NT | Chlamydia trachomatis section 37 of 87 of the complete genome |
| 10265 | 23300 | 36898 | 3.8 | 2.8E-01 | 7708163 | NT | Rattus norvegicus glycerol-3-phosphate dehydrogenase gene, promoters A and B and exons 1a and 1b; nuclear gene for mitochondrial product |
| 10319 | 23334 | | 1.1 | 2.8E-01 | 9826154 | NT | Homo sapiens hypothetical protein (LOC61319), mRNA |
| 10361 | 23598 | 37202 | 0.5 | 2.8E-01 | BE959727.2 | EST_HUMAN | Fujinami sarcoma virus, complete genome |
| 10982 | 24061 | 37696 | 1.88 | 2.8E-01 | BF241062.1 | EST_HUMAN | 601654822R1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:3839765 3' |
| 10982 | 24061 | 37698 | 1.88 | 2.8E-01 | BF241062.1 | EST_HUMAN | 601850794F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4109350 5' |
| 11011 | 24090 | 37727 | 3.01 | 2.8E-01 | BF695970.1 | EST_HUMAN | 601850794F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4109350 5' |
| | | | | | | NT | 601852148F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4076026 5' |
| 11119 | 24191 | 37823 | 1.53 | 2.8E-01 | AF051662.1 | NT | Drosophila heteroneura fruitless (fru) gene, alternative splice products, 5' flanking region, exons 1 through 7 and complete cds |
| 11356 | 24611 | | 3.58 | 2.8E-01 | BF074023.1 | EST_HUMAN | 602137418F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4273863 5' |
| 11851 | 24840 | 38533 | 1.55 | 2.8E-01 | AJ248285.1 | NT | Pyrococcus abyssi complete genome; segment 3/6 |
| 11861 | 24840 | 38534 | 1.65 | 2.8E-01 | AJ248285.1 | NT | Pyrococcus abyssi complete genome; segment 3/6 |
| 12715 | 25475 | | 12.78 | 2.8E-01 | D63329.1 | NT | Mus musculus DNA for prostaglandin D2 synthase, complete cds |
| 12846 | 25562 | 31987 | 7.61 | 2.8E-01 | BE178699.1 | EST_HUMAN | PM4-HT0806-030400-001-a07 HT0809 Homo sapiens cDNA |
| 12876 | 25682 | 31996 | 1.29 | 2.8E-01 | BE000116.1 | EST_HUMAN | 601673020F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3955986 5' |
| 13052 | 26083 | | 1.59 | 2.8E-01 | 11433629 | NT | Homo sapiens CDC42-binding protein kinase beta (DNIPK-like) (CDC42BPB), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 489 | 13683 | 28717 | 4.34 | 2.7E-01 | Y17324.1 | NT | Rattus norvegicus CDK104 mRNA |
| 628 | 13813 | 28835 | 13.84 | 2.7E-01 | AA450061.1 | EST_HUMAN | z33b10.a1 Soares_total_fetus_Nb2HF8_0w Homo sapiens cDNA clone IMAGE:788827 3' similar to contains Alu repetitive element; |
| 1280 | 14445 | 27512 | 2.04 | 2.7E-01 | AB004903.1 | NT | Ipomoea purpurea transposable element Tip100 gene for transposase, complete cds |
| 1650 | 14803 | | 1.63 | 2.7E-01 | X79815.1 | NT | G. lambia SR2 gene |
| 1768 | 14917 | 28012 | 3.16 | 2.7E-01 | W58067.1 | EST_HUMAN | z022h10.t1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:341443 5' |
| 1817 | 14988 | 28059 | 1.48 | 2.7E-01 | P03341 | SWISSPROT | GAG POLYPROTEIN (CONTAINS: INNER COAT PROTEIN P12; CORE PROTEIN P15; CORE SHELL PROTEIN P30; NUCLEOPROTEIN P10) |
| 2204 | 16057 | | 3.1 | 2.7E-01 | AF047575.1 | NT | Rattus norvegicus vesicular nucleolar transporter type 2, promoter region and exon 1 |
| 2250 | 16383 | 28510 | 0.94 | 2.7E-01 | A137272.1 | EST_HUMAN | EST175978 Infant brain, Bento Soares Homo sapiens cDNA clone UH1B01R 5' end |
| 2250 | 16383 | 28511 | 0.94 | 2.7E-01 | A137272.1 | EST_HUMAN | EST175978 Infant brain, Bento Soares Homo sapiens cDNA clone UH1B01R 5' end |
| 2440 | 16583 | 28696 | 7.07 | 2.7E-01 | Y18668.1 | NT | Feline Immunodeficiency virus env gene, isolate ITT0088PIU (M88), partial |
| 2528 | 16651 | 28775 | 4.36 | 2.7E-01 | A1310858.1 | EST_HUMAN | tx43o11.x2 NCL_CGAP_Lu25 Homo sapiens cDNA clone IMAGE:2046838 3' similar to contains element L1 repetitive element; |
| 3049 | 16225 | | 0.99 | 2.7E-01 | BF088284.1 | EST_HUMAN | CM1-HT0875-000900-385-e05 HT0875 Homo sapiens cDNA |
| 3361 | 16533 | 28547 | 0.68 | 2.7E-01 | 8393620 | NT | Rattus norvegicus Insulin receptor (Insr), mRNA |
| 4118 | 17272 | 30271 | 1.94 | 2.7E-01 | A1928015.1 | EST_HUMAN | w02e11.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2462828 3' |
| 4133 | 17288 | 30281 | 0.68 | 2.7E-01 | AF216214.1 | NT | Drosophila buzzatii alpha-esterase 6 (ae6) gene, partial cds |
| 4133 | 17288 | 30282 | 0.68 | 2.7E-01 | AF216214.1 | NT | Drosophila buzzatii alpha-esterase 6 (ae6) gene, partial cds |
| 4140 | 17292 | 30286 | 2.39 | 2.7E-01 | L77569.1 | NT | Homo sapiens DiGeorge syndrome critical region, telomeric end |
| 5153 | 18275 | | 4.46 | 2.7E-01 | AW855131.1 | EST_HUMAN | RC1-CT0288-230200-018-e03 CT0288 Homo sapiens cDNA |
| 5381 | 18683 | 31452 | 1.98 | 2.7E-01 | P17277 | SWISSPROT | HOMEBOX PROTEIN HOXA4 (CHOX-1.4) |
| 5307 | 18802 | | 1.31 | 2.7E-01 | AB033171.1 | NT | Astraeora myrtillophthalma mitochondrial cytb gene for cytochrome b, partial cds |
| 6472 | 19639 | 32998 | 0.86 | 2.7E-01 | Q00918 | SWISSPROT | LATENT TRANSFORMING GROWTH FACTOR BETA BINDING PROTEIN 1 PRECURSOR (TRANSFORMING GROWTH FACTOR BETA-1 BINDING PROTEIN 1) (TGF-BETA1-BP-1) (TRANSFORMING GROWTH FACTOR BETA-1 MASKING PROTEIN, LARGE SUBUNIT) |
| 6472 | 19639 | 32999 | 0.86 | 2.7E-01 | Q00918 | SWISSPROT | LATENT TRANSFORMING GROWTH FACTOR BETA BINDING PROTEIN 1 PRECURSOR (TRANSFORMING GROWTH FACTOR BETA-1 BINDING PROTEIN 1) (TGF-BETA1-BP-1) (TRANSFORMING GROWTH FACTOR BETA-1 MASKING PROTEIN, LARGE SUBUNIT) |
| 6745 | 19801 | 33293 | 1.05 | 2.7E-01 | AE001094.1 | NT | (TRANSFORMING GROWTH FACTOR BETA-1 BINDING PROTEIN 1) (TGF-BETA1-BP-1) |
| 6745 | 19801 | 33294 | 1.05 | 2.7E-01 | AE001094.1 | NT | Archaeoglobus fulgidus section 13 of 172 of the complete genome |
| 6918 | 20233 | 33667 | 1.74 | 2.7E-01 | Q61554 | SWISSPROT | Archaeoglobus fulgidus section 13 of 172 of the complete genome |
| 7197 | 20062 | | 0.77 | 2.7E-01 | A1540070.1 | EST_HUMAN | FIBRILLIN 1 PRECURSOR |
| 7511 | 20585 | 34058 | 0.92 | 2.7E-01 | Q11079 | SWISSPROT | ts08h08.x1 NCL_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2075103 3' |
| | | | | | | | HYPOTHETICAL 20.9 KD PROTEIN B0563.3 IN CHROMOSOME X |

Page 82 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Description |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 7734 | 20785 | 34283 | 0.87 | 2.7E-01 | Q01168 | SWISSPROT | NITROGEN REGULATORY PROTEIN NUT1 |
| 7734 | 20785 | 34284 | 0.87 | 2.7E-01 | Q01168 | SWISSPROT | NITROGEN REGULATORY PROTEIN NUT1 |
| 7895 | 20919 | 34425 | 2.1 | 2.7E-01 | AF248054.1 | NT | Bos taurus micromolar calcium activated neutral protease 1 (CAPN1) gene, exons 11-20, and partial cds |
| 7885 | 20919 | 34428 | 2.1 | 2.7E-01 | AF248054.1 | NT | Bos taurus micromolar calcium activated neutral protease 1 (CAPN1) gene, exons 11-20, and partial cds |
| 7917 | 20968 | 34474 | 0.72 | 2.7E-01 | AA351121.1 | EST_HUMAN | EST58740 Infant brain Homo sapiens cDNA 5' end similar to myosin-binding protein H |
| 7917 | 20968 | 34475 | 0.72 | 2.7E-01 | AA351121.1 | EST_HUMAN | EST58740 Infant brain Homo sapiens cDNA 5' end similar to myosin-binding protein H |
| 7978 | 21026 | 34540 | 0.65 | 2.7E-01 | L01081.1 | NT | Oryctolagus cuniculus UDP-glucuronosyltransferase (UGT2B13) mRNA, complete cds |
| 8048 | 21131 | 34651 | 0.66 | 2.7E-01 | AA013147.1 | EST_HUMAN | z33511.s1 Soares retina N2b-4HR Homo sapiens cDNA clone IMAGE:360957 3' similar to contains Alu repetitive element; |
| 8330 | 21412 | 34938 | 0.56 | 2.7E-01 | AW866303.1 | EST_HUMAN | MR1-SN0062-100500-002-d09 SN0062 Homo sapiens cDNA |
| 8380 | 21461 | 34984 | 0.59 | 2.7E-01 | R39257.1 | EST_HUMAN | y581106.s1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:23511 3' |
| 8486 | 21567 | 35104 | 0.83 | 2.7E-01 | AL161552.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 52 |
| 8959 | 22038 | 35580 | 1.4 | 2.7E-01 | Q14764 | SWISSPROT | MAJOR VOLTAGE-SENSITIVE CALCIUM CHANNEL-RELATED PROTEIN |
| 9534 | 22599 | 36171 | 10.56 | 2.7E-01 | O83809 | SWISSPROT | THREONYL-TRNA SYNTHETASE (THREONINE-TRNA LIGASE) (THRRS) |
| 9534 | 22599 | 36172 | 10.56 | 2.7E-01 | O83809 | SWISSPROT | THREONYL-TRNA SYNTHETASE (THREONINE-TRNA LIGASE) (THRRS) |
| 9537 | 22602 | | 2.66 | 2.7E-01 | P37928 | SWISSPROT | FIMBRIAE W PROTEIN |
| 10005 | 23043 | 36638 | 0.8 | 2.7E-01 | D89860.1 | NT | Rattus norvegicus DNA for peroxisome assembly factor-2, exon 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17 and complete cds |
| 10286 | 23321 | 36923 | 0.9 | 2.7E-01 | AF091848.1 | NT | Oryctolagus cuniculus edgranulin C mRNA, partial cds |
| 10323 | 23358 | 36968 | 2.06 | 2.7E-01 | AF087434.1 | NT | Mus musculus transcription factor NF-ATc1 isoform a (NF-ATc1) mRNA, complete cds |
| 10455 | 23490 | 37099 | 1.06 | 2.7E-01 | AF156539.1 | NT | Homo sapiens xeroderma pigmentosum complementation group C (XPC) gene, intron 9 |
| 10455 | 23490 | 37100 | 1.06 | 2.7E-01 | AF156539.1 | NT | Homo sapiens xeroderma pigmentosum complementation group C (XPC) gene, intron 9 |
| 10749 | 23782 | | 0.51 | 2.7E-01 | AB011678.1 | NT | Rattus norvegicus mRNA for class I beta-tubulin, complete cds |
| 10765 | 23788 | 37418 | 0.58 | 2.7E-01 | AF281074.1 | NT | Homo sapiens neuropilin 2 (NRP2) gene, complete cds, alternatively spliced |
| 10765 | 23788 | 37419 | 0.58 | 2.7E-01 | AF281074.1 | NT | Homo sapiens neuropilin 2 (NRP2) gene, complete cds, alternatively spliced |
| 11050 | 24127 | 37761 | 1.99 | 2.7E-01 | AV705043.1 | EST_HUMAN | AV705043 ADB Homo sapiens cDNA clone ADBCOD05 5' |
| 11050 | 24127 | 37762 | 1.99 | 2.7E-01 | AV705043.1 | EST_HUMAN | AV705043 ADB Homo sapiens cDNA clone ADBCOD05 5' |
| 11061 | 24137 | 37772 | 2.58 | 2.7E-01 | AJ133269.1 | NT | Homo sapiens caveolin-1/2 locus, Contig1, D7S522, genes CAV2 (exons 1, 2a, and 2b), CAV1 (exons 1 and 2) |
| 12816 | 25942 | | 1.49 | 2.7E-01 | AB008782.1 | NT | Arabidopsis thaliana mRNA for sulfate transporter, complete cds |
| 13034 | 26681 | | 2.75 | 2.7E-01 | AF217481.1 | NT | Homo sapiens fragile 16D oxidoreductase (FOR) gene, exon 6 |
| 482 | 18013 | 28710 | 2.8 | 2.6E-01 | P78411 | SWISSPROT | IRQUOIS-CLASS HOMEODOMAIN PROTEIN IRX-2 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 483 | 13638 | | 1.94 | 2.6E-01 | D16459.1 | NT | Bos taurus mRNA for mb-1, complete cds |
| 1424 | 14578 | 27851 | 1.77 | 2.6E-01 | BE885087.1 | EST_HUMAN | 601510838F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3912345 5' |
| 1468 | 14622 | 27705 | 1.09 | 2.6E-01 | AB013280.1 | NT | Glycine max pseudogene for Bd 30K |
| 1945 | 15038 | 28188 | 7.69 | 2.6E-01 | AL161472.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 2 |
| 1945 | 15038 | 28188 | 7.69 | 2.6E-01 | AL161472.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 2 |
| | | | | | | | bb04d10x1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:2958451 3' similar to gb:M36072 60S RIBOSOMAL PROTEIN L7A (HUMAN); gb:M14689_cd01 Mouse surfeit locus surfeit 3 protein gene (MOUSE) |
| 2159 | 16295 | | 10.39 | 2.6E-01 | AW733152.1 | EST_HUMAN | Human prealbumin gene, complete cds |
| 2220 | 15354 | 28485 | 1.13 | 2.6E-01 | M11844.1 | NT | Human prealbumin gene, complete cds |
| 2811 | 16735 | | 11.66 | 2.6E-01 | BE272440.1 | EST_HUMAN | 601126016F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:2980043 5' |
| 3161 | 16336 | | 1.11 | 2.6E-01 | AW974531.1 | EST_HUMAN | EST1386835 IMAGE:2980043 5' |
| 3071 | 16834 | 28845 | 0.84 | 2.6E-01 | M22342.1 | NT | Bacteriophage T2 DNA (adenine-N6)methyltransferase (dam) gene, complete cds |
| 3733 | 16894 | 29899 | 1.87 | 2.6E-01 | AF229118.1 | NT | Homo sapiens acetylcholinesterase collagen-like tail subunit (COLQ) gene, exons 1A, 2, 3, 4, and 5 |
| 4215 | 17384 | 30352 | 0.79 | 2.6E-01 | AW959510.1 | EST_HUMAN | EST1371580 IMAGE:2980043 5' |
| 4270 | 17415 | 30404 | 16.93 | 2.6E-01 | BE080598.1 | EST_HUMAN | QV1-BT0630-040400-132-e03 BT0630 Homo sapiens cDNA |
| | | | | | | | Enterococcus faecium strain N87-330 vanD glycopeptide resistance gene cluster, complete cds; and unknown gene |
| 4478 | 17618 | 30597 | 1.71 | 2.6E-01 | AF175293.1 | NT | Gallus gallus mRNA for skeletal myosin heavy chain, complete cds |
| 4817 | 17764 | 30735 | 0.69 | 2.6E-01 | AB021180.1 | NT | Gallus gallus mRNA for skeletal myosin heavy chain, complete cds |
| 4817 | 17764 | 30736 | 0.69 | 2.6E-01 | AB021180.1 | NT | Gallus gallus mRNA for skeletal myosin heavy chain, complete cds |
| 4870 | 17805 | 30794 | 1.14 | 2.6E-01 | AA457817.1 | EST_HUMAN | aa89007.r1 Striatum fetal refina 937202 Homo sapiens cDNA clone IMAGE:638477 5' |
| 4770 | 17905 | 30887 | 2.25 | 2.6E-01 | U01103.1 | NT | Arabidopsis thaliana PSI type III chlorophyll a/b-binding protein (Lhca3*) mRNA, complete cds |
| 4837 | 17670 | 30958 | 1.15 | 2.6E-01 | AF142703.1 | NT | Ophresilia radicea maturase-like protein (matK) gene, complete cds; chloroplast gene for chloroplast product y5t5e5.r1 Soares placenta Nb214F Homo sapiens cDNA clone IMAGE:152288 5' |
| 5086 | 18214 | 31187 | 3.63 | 2.6E-01 | H04858.1 | EST_HUMAN | am33b11.e1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1469806 3' |
| 5165 | 18277 | | 0.81 | 2.6E-01 | AA884625.1 | EST_HUMAN | Parametium caudatum gene for PAP, complete cds |
| 5457 | 18657 | | 1.29 | 2.6E-01 | AB035972.1 | NT | Acetabacter xylinum cellulose synthase (bcsA) gene, partial cds, CMCax and CopAx genes, complete cds |
| 5565 | 18762 | 31802 | 0.67 | 2.6E-01 | MB9060.1 | NT | td18a03.x1 NCI_QGAP_Cot16 Homo sapiens cDNA clone IMAGE:2075788 3' similar to contains element MER35 repetitive element |
| 5689 | 18983 | | 0.84 | 2.6E-01 | AB02398.1 | EST_HUMAN | Homo sapiens protein translocase, JM26 protein, UDP-galactose translocase, plm-2 proto-oncogene homolog plm-2h, and eha1-type potassium channel genes, complete cds; JM12 protein and transcription factor IGHM enhancer 3 genes, partial cds; and unknown g2 |
| 5895 | 19063 | 32394 | 0.84 | 2.6E-01 | AF207550.1 | NT | |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6198 | 28211 | | 2.57 | 2.6E-01 | AE001811.1 | NT | Thermotoga maritima section 123 of 136 of the complete genome |
| 6330 | 10501 | 32859 | 1.96 | 2.6E-01 | AI582557.1 | EST_HUMAN | is02a12.x1 NCI CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2227438 3' similar to SW:NDP1_RAT Q84289 NEUROGENIC DIFFERENTIATION FACTOR 1; contains element LTR1 repetitive element; |
| 6330 | 19501 | 32860 | 1.98 | 2.6E-01 | AI582557.1 | EST_HUMAN | is02a12.x1 NCI CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2227438 3' similar to SW:NDP1_RAT Q84289 NEUROGENIC DIFFERENTIATION FACTOR 1; contains element LTR1 repetitive element; |
| 6552 | 19714 | 33080 | 0.98 | 2.6E-01 | AL162757.2 | NT | Neisseria meningitidis serogroup A strain Z2491 complete genome; segment 617 |
| 6807 | 19931 | 33394 | 0.74 | 2.6E-01 | BE792052.1 | EST_HUMAN | 601581754F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3936156 5' |
| 6807 | 19981 | 33355 | 0.74 | 2.6E-01 | BE792052.1 | EST_HUMAN | 601581754F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3936156 5' |
| 7183 | 20315 | 33758 | 1.04 | 2.6E-01 | AI914380.1 | EST_HUMAN | wd48c04.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2331366 3' similar to gb:M37721 PEPTIDYL-GLYCINE ALPHA-AMIDATING MONOOXYGENASE PRECURSOR (HUMAN); |
| 7549 | 20621 | 34088 | 0.7 | 2.6E-01 | BE148901.1 | EST_HUMAN | CMO-HT0245-031199-085-401 HT0245 Homo sapiens cDNA |
| 7587 | 25848 | | 0.96 | 2.6E-01 | AL139077.2 | NT | Campylobacter jejuni NCTC11168 complete genome; segment 4/8 |
| 7826 | 20693 | | 0.78 | 2.6E-01 | AA196148.1 | EST_HUMAN | z92a01.1 Stratagene HeLa cell s3 937216 Homo sapiens cDNA clone IMAGE:627672 5' |
| 7818 | 20969 | 34478 | 1.73 | 2.6E-01 | R10365.1 | EST_HUMAN | gb:X12517 U1 SMALL NUCLEAR RIBONUCLEOPROTEIN C (HUMAN); |
| 8033 | 21118 | 34634 | 1.18 | 2.6E-01 | R02411.1 | EST_HUMAN | y832a07.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:128004 3' similar to |
| 8088 | 21170 | 34685 | 1.3 | 2.6E-01 | BE144331.1 | EST_HUMAN | MR0-HT0168-181199-003-412 HT0168 Homo sapiens cDNA |
| 8529 | 21610 | 35148 | 2.97 | 2.6E-01 | BF343588.1 | EST_HUMAN | 602014422F1 NCI CGAP_Brm64 Homo sapiens cDNA clone IMAGE:4160396 5' |
| 8605 | 21696 | 35223 | 1.74 | 2.6E-01 | Q10199 | SWISSPROT | HYPOTHETICAL 76.2 KD PROTEIN C11C11.02 IN CHROMOSOME II |
| 8892 | 21971 | 35503 | 4.06 | 2.6E-01 | BE830339.1 | EST_HUMAN | RC5-ET0082-310500-021-F10 E10082 Homo sapiens cDNA |
| 8892 | 21971 | 35507 | 4.06 | 2.6E-01 | BE830339.1 | EST_HUMAN | RC5-ET0082-310500-021-F10 E10082 Homo sapiens cDNA |
| 9867 | 22629 | 36200 | 0.92 | 2.6E-01 | X17004.1 | NT | S. occidentalis INV gene for Invertase (EC 3.2.1.26) |
| 9940 | 22979 | | 0.5 | 2.6E-01 | AF057121.1 | NT | Lontra canadensis cytochrome b (cytb) gene, mitochondrial gene encoding mitochondrial protein, complete cds |
| 10072 | 23110 | 36713 | 1.13 | 2.6E-01 | P87368 | SWISSPROT | GREEN-SENSITIVE OPSIN (GREEN CONE PHOTORECEPTOR PIGMENT) (KHF-G) |
| 10072 | 23110 | 36714 | 1.13 | 2.6E-01 | P87368 | SWISSPROT | GREEN-SENSITIVE OPSIN (GREEN CONE PHOTORECEPTOR PIGMENT) (KHF-G) |
| 10393 | 23428 | | 0.63 | 2.6E-01 | Q28295 | SWISSPROT | VON WILLEBRAND FACTOR PRECURSOR (VWF) |
| 10727 | 23760 | | 1.09 | 2.6E-01 | Y10198.1 | NT | Homo sapiens PHEX gene |
| 10840 | 23873 | | 0.48 | 2.6E-01 | Y15374.2 | NT | Danio rerio mRNA for RPTP-alpha protein |
| 11816 | 24804 | | 31.14 | 2.6E-01 | X61755.1 | NT | Human lambda-immunoglobulin constant region complex (germline) |
| 12468 | 26070 | | 4.14 | 2.6E-01 | BE883491.1 | EST_HUMAN | 601511052F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3912612 5' |
| 12636 | 25365 | 32069 | 3.88 | 2.6E-01 | AF316888.1 | NT | Homo sapiens Na/K-ATPase gamma subunit (FXD2) gene, complete cds, alternatively spliced |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 12922 | 25607 | | 2.04 | 2.6E-01 | D88425.1 | NT | Cavia cobaya mRNA for serine/threonine kinase, complete cds |
| 13007 | 25663 | | 1.78 | 2.6E-01 | AE001713.1 | NT | Thermoboga maritima section 25 of 138 of the complete genome |
| 13057 | 25692 | | 2.36 | 2.6E-01 | AF141325.2 | NT | Homo sapiens inositol polyphosphate 1-phosphatase (INPP1) gene, complete cds |
| 13088 | 19735 | | 1.43 | 2.6E-01 | BE272440.1 | EST_HUMAN | 601128016F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:2890043 5' |
| 13107 | 25722 | | 2.04 | 2.6E-01 | P47285 | SWISSPROT | HYPOPHOSPHATASE 1 (HPP1) gene, complete cds |
| 13150 | 25748 | | 2.4 | 2.6E-01 | U30729.1 | NT | Arabidopsis thaliana floral homeotic (AP3) gene, promoter region and partial cds |
| 251 | 13472 | 28503 | 1.87 | 2.5E-01 | 4502298 | NT | Homo sapiens ATP synthase, H+ transporting, mitochondrial F1 complex, delta subunit (ATP8D), nuclear gene encoding mitochondrial protein, mRNA |
| 282 | 13472 | 28503 | 1.7 | 2.5E-01 | 4502298 | NT | Homo sapiens ATP synthase, H+ transporting, mitochondrial F1 complex, delta subunit (ATP8D), nuclear gene encoding mitochondrial protein, mRNA |
| 285 | 13484 | | 2.51 | 2.5E-01 | M28501.1 | NT | Starfish (P. ochinaceus) cytoplasmic actin gene, complete cds |
| 855 | 14032 | 27093 | 1.23 | 2.5E-01 | U09984.1 | NT | Mus musculus ICR/Swiss glyceroldehyde 3-phosphate dehydrogenase (Gapd-S) gene, complete cds |
| 1085 | 14251 | | 1.75 | 2.5E-01 | AE002186.1 | NT | Ureaplasma urealyticum section 57 of 59 of the complete genome |
| 1145 | 14310 | 27367 | 5.45 | 2.5E-01 | T89837.1 | EST_HUMAN | ye11g07.r1 Stragene lung (#837210) Homo sapiens cDNA clone IMAGE:117468 5' |
| 1767 | 14916 | | 4.63 | 2.5E-01 | 4885403 | NT | Homo sapiens hyperpolarization activated cyclic nucleotide-gated potassium channel 4 (HCN4) mRNA |
| 2479 | 15008 | | 11.21 | 2.5E-01 | AE000875.1 | NT | Aquifex aeolicus section 7 of 109 of the complete genome |
| 2563 | 15688 | 28814 | 1.22 | 2.5E-01 | 6870218 | NT | Mus musculus protein-L-isocysteine (D-aspartate) O-methyltransferase 1 (Pcm1), mRNA |
| 2565 | 15690 | | 1.02 | 2.5E-01 | AA251987.1 | EST_HUMAN | zs11a12.r1 NCI CGAP GC81 Homo sapiens cDNA clone IMAGE:684862 5' |
| 2702 | 15820 | 28936 | 1 | 2.5E-01 | X8510.1 | NT | B. taurus mRNA for D-aspartate oxidase |
| 3439 | 16565 | | 3.34 | 2.5E-01 | AW973471.1 | EST_HUMAN | EST389494 IMAGE resequences, MAGM Homo sapiens cDNA |
| 3839 | 16803 | 28816 | 7.18 | 2.5E-01 | AL161617.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 29 |
| 3950 | 17108 | 30105 | 1.25 | 2.5E-01 | A1741483.1 | EST_HUMAN | wg11c07.x1 Soares NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2364780 3' |
| 3950 | 17108 | 30108 | 1.25 | 2.5E-01 | A1741483.1 | EST_HUMAN | wg11c07.x1 Soares NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2364780 3' |
| 4438 | 17578 | | 0.88 | 2.5E-01 | Q03314 | SWISSPROT | RHIB PROTEIN |
| 4737 | 17872 | 30855 | 0.7 | 2.5E-01 | AF242431.1 | NT | Mus musculus neuronal apoptosis inhibitory protein 8 (Nai8) gene, complete cds, and Nai3 gene, exons 2-9 and 11-16 |
| 4871 | 18004 | | 1.13 | 2.5E-01 | Q27225 | SWISSPROT | MOLT-INHIBITING HORMONE PRECURSOR (MIH) |
| 4878 | 18003 | 30893 | 3.69 | 2.5E-01 | AF007768.1 | NT | Choristoneura fumiferana diapause associated protein 2 (DAP2) mRNA, complete cds |
| 4904 | 18034 | 31023 | 2.3 | 2.5E-01 | AE004416.1 | NT | Vibrio cholerae chromosome II, section 73 of 83 of the complete chromosome |
| 4926 | 18058 | | 3.54 | 2.5E-01 | AJ230113.1 | NT | Mus musculus annexin V gene, intron 4 segment containing 5' LTR and gap portion of MuERV-L (murine endogenous retrovirus) element |
| 4954 | 18084 | 31060 | 0.8 | 2.5E-01 | BE886785.1 | EST_HUMAN | 601437468F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3922800 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 4994 | 18123 | 31101 | 0.61 | 2.5E-01 | U83650.1 | NT | Rattus norvegicus NF-KB gene, promoter region |
| 5212 | 18333 | 31303 | 0.62 | 2.5E-01 | P27023 | SWISSPROT | MAJOR SURFACE GLYCOPROTEIN G (ATTACHMENT GLYCOPROTEIN G) |
| 5212 | 18333 | 31304 | 0.62 | 2.5E-01 | P27023 | SWISSPROT | MAJOR SURFACE GLYCOPROTEIN G (ATTACHMENT GLYCOPROTEIN G) |
| 5337 | 18450 | | 1.08 | 2.5E-01 | AA419208.1 | EST_HUMAN | z35a05.r1 Soares ovary tumor NBH07 Homo sapiens cDNA clone IMAGE:755600 5' similar to gb:M88279 |
| 5441 | 18641 | 31620 | 12.21 | 2.5E-01 | S83390.1 | NT | T3 receptor-associating cofactor-1 [human, fetal liver, mRNA, 2830 nt] |
| 6080 | 19292 | 32591 | 0.6 | 2.5E-01 | AJ006945.1 | NT | Homo sapiens KVLQ11 gene |
| 6081 | 19293 | | 0.81 | 2.5E-01 | AL163207.2 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 6762 | 19918 | 33313 | 0.82 | 2.5E-01 | AJ251973.1 | NT | Homo sapiens partial steerin-1 gene |
| 7190 | 20055 | 33465 | 0.84 | 2.5E-01 | 8394138 | NT | Rattus norvegicus rab3 (RABIN3), mRNA |
| 7607 | 20581 | 34054 | 0.71 | 2.5E-01 | U13992.1 | NT | Feline calicivirus CF168 RNA helicase/cysteine protease/RNA-dependent RNA polymerase polyprotein precursor and capsid protein precursor, genes, complete cds; and unknown gene |
| 7536 | 20539 | | 1.13 | 2.5E-01 | AF134119.1 | NT | Mus musculus SKD1 (Skd1) gene, complete cds |
| 7770 | 20828 | 34318 | 0.62 | 2.5E-01 | AL161808.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 18 |
| 7814 | 20869 | 34365 | 4.23 | 2.5E-01 | AL163282.2 | NT | Homo sapiens chromosome 21 segment HS21C082 |
| 8028 | 21111 | 34630 | 2.22 | 2.5E-01 | BF109040.1 | EST_HUMAN | 7157a03.x1 Soares NSF_F8_gw_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3525388 3' |
| 8039 | 21122 | 34642 | 0.51 | 2.5E-01 | BE090712.1 | EST_HUMAN | 601653391R2 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3826198 3' |
| 8421 | 21502 | 35034 | 1.9 | 2.5E-01 | BE038655.1 | EST_HUMAN | 601459238F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3862809 5' |
| 8591 | 21672 | 35210 | 0.8 | 2.5E-01 | P04492 | SWISSPROT | ETB PROTEIN, SMALL T-ANTIGEN (E1B 19K) |
| 8837 | 21916 | 35454 | 4.07 | 2.5E-01 | H53236.1 | EST_HUMAN | yq84f07.r1 Soares fetal liver spleen 1NfLS Homo sapiens cDNA clone IMAGE:202501 5' |
| 8076 | 22155 | 35699 | 1.05 | 2.5E-01 | M88628.1 | NT | Mouse testis-specific protein (TPX-1) gene, exon 10 |
| 9716 | 22761 | 36351 | 16.85 | 2.5E-01 | U89851.2 | NT | Homo sapiens matrix metalloproteinase MMP Rasi-1 gene, promoter region |
| 9716 | 22761 | 36352 | 16.85 | 2.5E-01 | U89851.2 | NT | Homo sapiens matrix metalloproteinase MMP Rasi-1 gene, promoter region |
| 9772 | 22768 | 36339 | 2.44 | 2.5E-01 | AF085164.1 | NT | Harderum vulgare receptor-like kinase LRK10 gene, partial cds |
| 9772 | 22768 | 36340 | 2.44 | 2.5E-01 | AF085164.1 | NT | Harderum vulgare receptor-like kinase LRK10 gene, partial cds |
| 10303 | 23335 | 36943 | 1.31 | 2.5E-01 | AW581997.1 | EST_HUMAN | RC3-ST0188-130100-015-e07 ST0188 Homo sapiens cDNA |
| 10550 | 23685 | 37183 | 0.51 | 2.5E-01 | 11465652 | NT | Porphyra purpurea chloroplast, complete genome |
| 10768 | 23798 | 37416 | 1.4 | 2.5E-01 | AW152245.1 | EST_HUMAN | xg40c-10.x1 NCL_GGAP_U1 Homo sapiens cDNA clone IMAGE:2630034 3' similar to contains Alu repetitive element; contains element MSR1 repetitive element; |
| 10767 | 23800 | 37422 | 1.61 | 2.5E-01 | X58491.1 | NT | Mouse L1Md LINE DNA |
| 11332 | 24395 | 38043 | 2.86 | 2.5E-01 | D50914.1 | NT | Human mRNA for KIAA0124 gene, partial cds |
| 12204 | 25158 | 38834 | 6.16 | 2.5E-01 | AF200628.1 | NT | Zea mays cellulose synthase-4 (Cesa-4) mRNA, complete cds |
| 12233 | 26167 | | 6.12 | 2.5E-01 | AL161641.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 41 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 13024 | 26674 | | 1.22 | 2.5E-01 | AF325363.1 | NT | Della brassica cytochrome oxidase subunit II (COII) gene, partial cds; mitochondrial gene for mitochondrial product |
| 567 | 13759 | 26783 | 1.41 | 2.4E-01 | AA936316.1 | EST_HUMAN | on70d04.s1 Soares_NFL_T_CSC_S1 Homo sapiens cDNA clone IMAGE:1562023 3' |
| 871 | 14047 | 27113 | 4.4 | 2.4E-01 | BF576124.1 | EST_HUMAN | 602132442F1 NIH_MGC_91 Homo sapiens cDNA clone IMAGE:4271678 6' |
| 1332 | 14489 | 27557 | 16.83 | 2.4E-01 | AJ289880.1 | NT | Homo sapiens KIAA0851 gene (partial), X13 gene and LZTFL1 gene |
| 1332 | 14489 | 27558 | 16.83 | 2.4E-01 | AJ289880.1 | NT | Homo sapiens KIAA0851 gene (partial), X13 gene and LZTFL1 gene |
| 1415 | 14569 | 27642 | 0.97 | 2.4E-01 | Y17293.1 | NT | Homo sapiens FLI-1 gene, partial |
| 1898 | 16041 | | 29.78 | 2.4E-01 | AF267753.1 | NT | Mesembryanthemum crystallinum putative potassium channel protein Mkt1p mRNA, complete cds |
| 1849 | 15092 | 28183 | 1.43 | 2.4E-01 | AF251708.1 | NT | Zoecys dharmades fructose-1,6-bisphosphatase mRNA, complete cds |
| 2091 | 15231 | 28353 | 1.64 | 2.4E-01 | A1742958.1 | EST_HUMAN | wg76d05.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2371017 3' similar to TR:O60267 O60267 KIAA0512 PROTEIN. ; |
| 2208 | 15340 | 28487 | 1.17 | 2.4E-01 | AF111168.2 | NT | Homo sapiens serine palmitoyl transferase, subunit II gene, complete cds; and unknown genes |
| 2237 | 16370 | | 1.25 | 2.4E-01 | P45984 | SWISSPROT | IMMUNOGLOBULIN A1 PROTEASE PRECURSOR (IGA1 PROTEASE) |
| 2336 | 15467 | 28602 | 2.29 | 2.4E-01 | AE000680.1 | NT | Aquifex acidicus section 12 of 109 of the complete genome |
| 2602 | 15726 | 28845 | 3.13 | 2.4E-01 | Z36634.1 | NT | D.discoideum (Ax3-K) pomA gene |
| 2620 | 16334 | 28045 | 2.22 | 2.4E-01 | X71783.1 | NT | S.pombe swis gene |
| 2846 | 15960 | 29069 | 6.27 | 2.4E-01 | AF030164.1 | NT | Bovine adenovirus 3 complete genome |
| 3202 | 16377 | | 3.03 | 2.4E-01 | U72726.1 | NT | Oryza longistaminata receptor kinase-like protein, family member D, and retrofit (gag/pol) genes, complete cds |
| 3217 | 16391 | 29402 | 1.51 | 2.4E-01 | X74209.1 | NT | H.sapiens AGT gene, PstI fragment of intron 4 |
| 3856 | 17016 | 30018 | 0.97 | 2.4E-01 | AE000312.1 | NT | Escherichia coli K-12 MG1635 section 202 of 400 of the complete genome |
| 4141 | 17283 | | 0.95 | 2.4E-01 | D29360.1 | NT | Rattus norvegicus mRNA for alphaB crystallin-related protein, complete cds |
| 5181 | 18303 | 31268 | 0.65 | 2.4E-01 | AW076593.1 | EST_HUMAN | xb18a02.x1 NCL_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:2576818 3' |
| 5181 | 18303 | 31267 | 0.65 | 2.4E-01 | AW076593.1 | EST_HUMAN | xb18a02.x1 NCL_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:2576818 3' |
| | | | | | | | Bacillus firmus hypothetical 34.0 kDa protein, hypothetical 8.9 kDa protein, hypothetical 10.1 kDa protein, hypothetical 21.0 kDa protein, putative thiosulfate sulfurtransferase, hypothetical 18.1 kDa transcriptional regulator and hypothetical 18.2 kDa> |
| 5334 | 18447 | 31415 | 1.89 | 2.4E-01 | U89914.1 | NT | Homo sapiens gene for TU12B1-TY, exon 13 |
| 5336 | 18448 | 31416 | 1.48 | 2.4E-01 | AB032785.1 | NT | Homo sapiens gene for TU12B1-TY, exon 13 |
| 5335 | 18448 | 31417 | 1.48 | 2.4E-01 | AB032785.1 | NT | Homo sapiens gene for TU12B1-TY, exon 13 |
| 5578 | 18773 | 31818 | 0.9 | 2.4E-01 | A1925707.1 | EST_HUMAN | wc33d05.x1 NCL_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2457128 3' |
| 5578 | 18773 | 31819 | 0.9 | 2.4E-01 | A1925707.1 | EST_HUMAN | wc33d05.x1 NCL_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2457128 3' |
| 5602 | 18767 | 31847 | 0.59 | 2.4E-01 | D50871.1 | NT | Glycine max mRNA for mitotic cyclin b1-type, complete cds |
| 5772 | 18964 | 32266 | 12.86 | 2.4E-01 | AF091216.1 | NT | Mus musculus Wrm protein (Wrm) gene, complete cds |
| 5772 | 18964 | 32267 | 12.86 | 2.4E-01 | AF091216.1 | NT | Mus musculus Wrm protein (Wrm) gene, complete cds |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 5800 | 18990 | | 0.7 | 2.4E-01 | M83377.1 | NT | Gallus gallus brain-derived neurotrophic factor (BDNF) gene, 5' end |
| 6010 | 25815 | | 0.97 | 2.4E-01 | AJ133836.2 | NT | Branchiostoma floridae mRNA for calmodulin 2 (cam2) gene |
| 6016 | 19200 | 32517 | 2.54 | 2.4E-01 | BF592338.1 | EST_HUMAN | 715404.x1 NCI_CGAP_B16 Homo sapiens cDNA clone IMAGE:3338503 3' similar to SW:SFR4_HUMAN |
| 6108 | 19285 | 32620 | 2.47 | 2.4E-01 | AF035546.1 | NT | Q08170 SPLICING FACTOR, ARGININE/SERINE-RICH 4; contains element TAR1 TAR1 repetitive element |
| 6218 | 19390 | 32738 | 2.49 | 2.4E-01 | 7661801 | NT | Drosophila melanogaster p38a MAP kinase gene, complete cds |
| 6289 | 19443 | 32782 | 0.94 | 2.4E-01 | AV733787.1 | EST_HUMAN | Homo sapiens HSPC142 protein (HSPC142), mRNA |
| 6516 | 19681 | 33061 | 0.87 | 2.4E-01 | AA388672.1 | EST_HUMAN | AV733787 cDNA Homo sapiens cDNA clone cdaADE11 5' |
| 6665 | 19824 | 33212 | 1.59 | 2.4E-01 | AI698989.1 | EST_HUMAN | z70cd02.s1 Soares_batle_NHT Homo sapiens cDNA clone IMAGE:727683 3' |
| 7408 | 20573 | 34046 | 7.79 | 2.4E-01 | L43001.1 | NT | wc62c11.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2323220 3' similar to gb:J03464 |
| 7902 | 20954 | 34461 | 0.68 | 2.4E-01 | AF229844.1 | NT | PROCOLLAGEN ALPHA 2(I) CHAIN PRECURSOR (HUMAN); |
| 8271 | 21353 | 34868 | 0.5 | 2.4E-01 | X97252.1 | NT | Bos taurus guanylyl cyclase-activating protein 2 (guca2) mRNA, complete cds |
| 8271 | 21353 | 34869 | 0.5 | 2.4E-01 | X97252.1 | NT | Mus musculus pah gene and promoter |
| 8392 | 21473 | 34988 | 1.48 | 2.4E-01 | AJ006397.1 | NT | Mus musculus pah gene and promoter |
| 8392 | 21473 | 35000 | 1.48 | 2.4E-01 | AJ006397.1 | NT | Mus musculus pah gene and promoter |
| 8544 | 21625 | 35162 | 1.29 | 2.4E-01 | AJ012585.1 | NT | Streptococcus pneumoniae r08 and h08 genes; two component system 08 |
| 8788 | 21677 | 35416 | 1.18 | 2.4E-01 | BF242794.1 | EST_HUMAN | Tetrahymena thermophila macronuclear gene encoding ribosomal protein L3, exons 1-2 |
| 9332 | 22408 | 35861 | 0.58 | 2.4E-01 | AL139077.2 | NT | 60187787F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4108298 5' |
| 9332 | 22408 | 35962 | 0.58 | 2.4E-01 | AL139077.2 | NT | Campylobacter jejuni NCTC11168 complete genome; segment 4/6 |
| 9763 | 22701 | 36267 | 8.39 | 2.4E-01 | AI693515.1 | EST_HUMAN | wd43502.x1 Soares_NFL_I_GBC_S1 Homo sapiens cDNA clone IMAGE:2330906 3' similar to contains |
| 8905 | 22945 | 36530 | 0.68 | 2.4E-01 | AF220067.1 | NT | MER22.b1 TAR1 repetitive element |
| 8905 | 22945 | 36531 | 0.68 | 2.4E-01 | AF220067.1 | NT | Drosophila melanogaster SKPB gene, complete cds |
| 10654 | 23088 | 37297 | 1.8 | 2.4E-01 | Q03882 | SWISSPROT | Drosophila melanogaster SKPB gene, complete cds |
| 11006 | 24085 | 37722 | 2.15 | 2.4E-01 | AL181494.2 | NT | COLLAGEN ALPHA 1(X) CHAIN PRECURSOR |
| 11074 | 24149 | 37788 | 1.66 | 2.4E-01 | AF030199.1 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 6 |
| 11447 | 24508 | 38174 | 1.8 | 2.4E-01 | BE286917.1 | EST_HUMAN | Mus musculus type 1 sigma receptor gene, complete cds |
| 11447 | 24508 | 38175 | 1.8 | 2.4E-01 | BE286917.1 | EST_HUMAN | 601176415F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531843 5' |
| 11478 | 24537 | | 8.04 | 2.4E-01 | Z21647.1 | NT | 601176416F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531843 5' |
| 12168 | 25127 | 38827 | 1.75 | 2.4E-01 | AF217491.1 | NT | P.asiatica mosaic virus genomic RNA |
| 12288 | 25932 | | 1.35 | 2.4E-01 | AF004213.1 | NT | Homo sapiens fragile 16D cdc2o reductase (FOR) gene, exon 6 |
| 12360 | 25258 | | 1.62 | 2.4E-01 | AJ278191.1 | NT | Arabidopsis thaliana ethylene-insensitive-like1 (EIL1) mRNA, complete cds |
| | | | | | | | Mus musculus mRNA for putative nc7 protein (nc7 gene) |

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Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 12588 | 25914 | | 1.95 | 2.4E-01 | V01507.1 | NT | Gallus gallus gene coding for e-actin |
| 12839 | 26151 | | 1.37 | 2.4E-01 | BF228975.1 | EST_HUMAN | RC3-CT0413-100800-023-b08 CT0413 Homo sapiens cDNA |
| 13072 | 26701 | | 1.4 | 2.4E-01 | AJ238044.1 | NT | Homo sapiens mRNA for bradykinin B1 receptor (B1BR gene) |
| 13102 | 26718 | | 4.16 | 2.4E-01 | AL163281.2 | NT | Homo sapiens chromosome 21 segment HS21C081 |
| 400 | 13597 | 26633 | 1.39 | 2.3E-01 | S75898.1 | NT | aromatase [Pocphila guttata=zebra finches, oway, mRNA, 3188 nt] |
| 654 | 13840 | | 5.53 | 2.3E-01 | U39713.1 | NT | Mycoplasma genitalium section 35 of 51 of the complete genome |
| 684 | 13859 | 26900 | 29.31 | 2.3E-01 | U67598.1 | NT | Medusococcus jamaeschild section 138 of 150 of the complete genome |
| 957 | 14130 | 27188 | 3.57 | 2.3E-01 | BE311893.1 | EST_HUMAN | 601142073F1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:3505918 5' |
| 1634 | 14786 | 27872 | 1.11 | 2.3E-01 | AJ245480.1 | NT | Brassica napus sig gene for S-locus glycoprotein, cultivar T2 |
| 1661 | 14813 | 27898 | 1.72 | 2.3E-01 | Y10887.2 | NT | Mus musculus cdh6 gene, exon 1, partial |
| 2103 | 16242 | | 1.78 | 2.3E-01 | AJ235353.1 | NT | Homo sapiens partial intron 3 of the wild type AF-4/FEL gene |
| 2517 | 16543 | 28784 | 1.85 | 2.3E-01 | BE297718.1 | EST_HUMAN | 601175562F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531015 5' |
| 2717 | 18335 | 28945 | 0.98 | 2.3E-01 | M11319.1 | NT | Human erythropoietin gene, complete cds |
| 2885 | 14573 | 27846 | 1.5 | 2.3E-01 | AB015033.1 | NT | Martiniabilla agarivorans gylB gene for DNA gyrase subunit B, partial cds, strain:IFO 14957 |
| 3028 | 16204 | 29227 | 1.08 | 2.3E-01 | AA601379.1 | EST_HUMAN | no16d08.s1 NCL CGAP_Pher1 Homo sapiens cDNA clone IMAGE:1100843 3' similar to contains Alu repetitive element; contains element THR repetitive element |
| 3153 | 16328 | | 7.06 | 2.3E-01 | R21732.1 | EST_HUMAN | Yh21b07.s1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:130357 3' |
| 3498 | 16623 | 29844 | 1.32 | 2.3E-01 | H69838.1 | EST_HUMAN | V077h10.1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:213283 5' |
| 3844 | 17103 | 30100 | 0.98 | 2.3E-01 | S82821.1 | NT | GSTA5=glutathione S-transferase Yc2 subunit (5' region, intron 1) [rats, Morris hepatoma cell line, Genomic, 2212 nt, segment 1 of 3] |
| 4046 | 17202 | | 5.15 | 2.3E-01 | 7662133 | NT | Homo sapiens KIAA0450 gene product (KIAA0450), mRNA |
| 4470 | 17610 | 30588 | 0.86 | 2.3E-01 | R82252.1 | EST_HUMAN | V17701.1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:148017 5' |
| 4520 | 17659 | | 1.91 | 2.3E-01 | L78789.1 | NT | Mus musculus renin (Ren-1c) gene, promoter region |
| 4573 | 17710 | 30693 | 1.12 | 2.3E-01 | D90899.1 | NT | Synechocystis sp. PCC6803 complete genome, 1/27, 1-133859 |
| 4811 | 17748 | 30728 | 2.76 | 2.3E-01 | AF082535.1 | NT | Homo sapiens mitogen-activated protein kinase p38delta (PRKM13) mRNA, complete cds |
| 4878 | 17911 | 30800 | 5.85 | 2.3E-01 | 5031984 | NT | Homo sapiens nuclear transport factor 2 (placental protein 15) (PP15) mRNA |
| 5159 | 18281 | 31248 | 0.87 | 2.3E-01 | AB032400.1 | NT | Mus musculus tulip 1 mRNA, complete cds |
| 5223 | 18345 | | 1.03 | 2.3E-01 | M16364.1 | NT | Human gamma-B-crystallin (gamma 1-2) and gamma-C-crystallin (gamma 2-1) genes, complete cds |
| 5260 | 18379 | 31345 | 0.89 | 2.3E-01 | BF574804.1 | EST_HUMAN | 602192210F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4271547 5' |
| 5419 | 18620 | 31596 | 2.47 | 2.3E-01 | AB040945.1 | NT | Homo sapiens mRNA for KIAA1612 protein, partial cds |
| | | | | | | | 7k3b05b.x1 NCL CGAP_OV18 Homo sapiens cDNA clone IMAGE:3476898 3' similar to SW:GAG_SMSAV |
| | | | | | | | P03330 GAG POLYPROTEIN [CONTAINS: CORE PROTEIN P16; INNER COAT PROTEIN P12; CORE |
| 5545 | 18742 | 31776 | 2.03 | 2.3E-01 | BF056381.1 | EST_HUMAN | SHELL PROTEIN P30; NUCLEOPROTEIN P10]; |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO. | Exon SEQ ID NO. | ORF SEQ ID NO. | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 5847 | 18841 | 32122 | 5.25 | 2.3E-01 | X06587.1 | NT | C. familiaris rom1 gene |
| 5766 | 18958 | | 0.99 | 2.3E-01 | L397112.1 | NT | Vitiforme cornu small subunit ribosomal RNA gene |
| 5870 | 19060 | 32367 | 1.32 | 2.3E-01 | S60371.1 | NT | 23S rRNA [Leuconostoc carnosum, Genomia, 2868 nt] |
| 6082 | 19244 | 32569 | 1.98 | 2.3E-01 | A1708840.1 | EST_HUMAN | as27612.x1 Barstead aorta HPLRB6 Homo sapiens cDNA clone IMAGE:2318448 3' similar to gb:X13238 |
| 6082 | 19244 | 32570 | 1.98 | 2.3E-01 | A1708840.1 | EST_HUMAN | CYTCHROME C OXIDASE POLYPEPTIDE VIC PRECURSOR (HUMAN); as27612.x1 Barstead aorta HPLRB6 Homo sapiens cDNA clone IMAGE:2318448 3' similar to gb:X13238 |
| 6794 | 18949 | 33348 | 0.68 | 2.3E-01 | AF188088.1 | NT | Cytobagis cuniculus cytochrome oxidase subunit VIa (coxVIa) mRNA, complete cds; nuclear gene for mitochondrial product |
| 7017 | 20153 | 33573 | 4.63 | 2.3E-01 | A1781848.1 | EST_HUMAN | as4212.x1 Barstead aorta HPLRB6 Homo sapiens cDNA clone IMAGE:2318887 3' similar to contains Alu repetitive element |
| 7260 | 20343 | 33785 | 0.86 | 2.3E-01 | 8923323 | NT | Homo sapiens hypothetical protein FLJ20345 (FLJ20345), mRNA |
| 7440 | 20517 | 33889 | 0.76 | 2.3E-01 | AF000227.1 | NT | Secale cereale omega secalin gene, complete cds |
| 7573 | 20645 | 34123 | 2.54 | 2.3E-01 | AF175389.1 | NT | Glycine max resistance protein LM17 precursor RNA, partial cds |
| 7578 | 20848 | 34125 | 5.37 | 2.3E-01 | AV719681.1 | EST_HUMAN | AV719681 GLC Homo sapiens cDNA clone GLCDB08 5' |
| 7576 | 20648 | 34126 | 5.37 | 2.3E-01 | AV719681.1 | EST_HUMAN | AV719681 GLC Homo sapiens cDNA clone GLCDB08 5' |
| 7764 | 20840 | | 4.28 | 2.3E-01 | 8764779 | NT | Mus musculus myosin XV (Myo15), mRNA |
| 7789 | 20845 | 34338 | 1.58 | 2.3E-01 | BE888071.1 | EST_HUMAN | 601511573F1 NIH_MGC 71 Homo sapiens cDNA clone IMAGE:3912859 5' |
| 7931 | 20981 | | 2.8 | 2.3E-01 | N80983.1 | EST_HUMAN | zat2e08.r1 Soares fetal liver spleen 1NLS Homo sapiens cDNA clone IMAGE:292358 5' |
| 7988 | 21018 | 34530 | 0.71 | 2.3E-01 | 11416821 | NT | Homo sapiens protodactherin alpha cluster (LOC63960), mRNA |
| 7988 | 21018 | 34531 | 0.71 | 2.3E-01 | 11416821 | NT | Homo sapiens protodactherin alpha cluster (LOC63960), mRNA |
| 8035 | 21118 | 34637 | 0.52 | 2.3E-01 | AL181558.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 58 |
| 8183 | 21265 | 34788 | 1.73 | 2.3E-01 | M88831.1 | NT | Oxytricha nova macronuclear telomere-binding protein alpha subunit (tel-alpha alanine version) gene, complete cds |
| 8690 | 21770 | 35300 | 0.62 | 2.3E-01 | U57999.1 | NT | Mus musculus prosaposin (psap/SGP-1) gene, complete cds |
| 8972 | 22051 | 35594 | 0.58 | 2.3E-01 | AW090541.1 | EST_HUMAN | xc80a06.x1 NCL_GAP_Brn35 Homo sapiens cDNA clone IMAGE:2591554 3' |
| 8089 | 22168 | 35715 | 0.52 | 2.3E-01 | AW064460.1 | EST_HUMAN | EST376533 MAGE sequences, MAGEH Homo sapiens cDNA |
| 9341 | 22417 | 35970 | 0.64 | 2.3E-01 | AA372164.1 | EST_HUMAN | EST84061 Rhabdomyosarcoma Homo sapiens cDNA 5' and similar to DnaJ homolog (GB:X633368) |
| 9341 | 22417 | 35971 | 0.64 | 2.3E-01 | AA372164.1 | EST_HUMAN | EST84061 Rhabdomyosarcoma Homo sapiens cDNA 5' and similar to DnaJ homolog (GB:X633368) |
| 9780 | 22820 | 36398 | 0.5 | 2.3E-01 | 6878318 | NT | Mus musculus phosphatidylinositol 3-kinase catalytic subunit delta (Pik3cd), mRNA |
| 9930 | 22970 | 36559 | 0.53 | 2.3E-01 | BE277860.1 | EST_HUMAN | 601120110F1 NIH_MGC 20 Homo sapiens cDNA clone IMAGE:2966739 5' |
| 9985 | 23024 | 36616 | 0.81 | 2.3E-01 | AW064460.1 | EST_HUMAN | EST376533 MAGE sequences, MAGEH Homo sapiens cDNA |
| 10037 | 23075 | 36876 | 1.57 | 2.3E-01 | X62124.1 | NT | Haemophilus influenzae genes for HincII restriction-modification system (HincII methyltransferase (EC 2.1.1.72) and HincII endonuclease (EC 3.1.21.4)) |

Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 10071 | 23109 | 36712 | 0.83 | 2.3E-01 | AW384633.1 | EST_HUMAN | PM2-DT0036-261269-001-104 DT0036 Homo sapiens cDNA |
| 10138 | 23176 | 36773 | 2.62 | 2.3E-01 | BE173060.1 | EST_HUMAN | MRO-HT0569-240400-014-g11 HT0569 Homo sapiens cDNA |
| 10197 | 23234 | 36823 | 2.48 | 2.3E-01 | AJ283261.1 | NT | Rhizobium leguminosarum partial genomic DNA for exopolysaccharide biosynthesis genes |
| 10688 | 23692 | 37302 | 0.94 | 2.3E-01 | AF201829.1 | NT | Murine hepatitis virus strain 2, complete genome |
| 10871 | 23705 | | 6.89 | 2.3E-01 | BF133577.1 | EST_HUMAN | 601646165R2 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:4102092 3' |
| 11465 | 24524 | 38195 | 2.24 | 2.3E-01 | AJ250189.1 | NT | Mus musculus partial mRNA for muscle protein 534 (mg534 gene) |
| 11465 | 24524 | 38198 | 2.24 | 2.3E-01 | AJ250189.1 | NT | Mus musculus partial mRNA for muscle protein 534 (mg534 gene) |
| 11633 | 24713 | 38404 | 2.43 | 2.3E-01 | AE002167.2 | NT | Gliomydiphilia pneumoniae AR39, section 4 of 94 of the complete genome |
| 12099 | 25079 | | 1.38 | 2.3E-01 | AV709736.1 | EST_HUMAN | AV709736 ADC Homo sapiens cDNA clone ADGAGH01 5' |
| 12281 | 25210 | | 3.07 | 2.3E-01 | U46428.1 | NT | Borrelia burgdorferi 2.8-6 locus, ORF-A-D genes, complete cds and REP+ gene, partial cds |
| 12370 | 25264 | | 48.78 | 2.3E-01 | T27231.1 | EST_HUMAN | HCOEST44 HT28M6 Homo sapiens cDNA clone HCOE44 5' |
| 12395 | 25873 | | 1.23 | 2.3E-01 | AA089818.1 | EST_HUMAN | clm1424.seq F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA 5' |
| 12484 | 26086 | 31657 | 4.08 | 2.3E-01 | AW303623.1 | EST_HUMAN | x21d07.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2813773 3' similar to TR:Q8Z175 |
| 12500 | 26143 | 31652 | 7.06 | 2.3E-01 | BE882484.1 | EST_HUMAN | Q8Z175 LYSYL OXIDASE-RELATED PROTEIN 2, contains PTR6.b2 TARI repetitive element; |
| 12553 | 25376 | | 1.77 | 2.3E-01 | BF663319.1 | EST_HUMAN | 601607202F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3908889 5' |
| 12612 | 25411 | | 2.74 | 2.3E-01 | AJ066519.1 | NT | 602144459F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4287719 5' |
| 12708 | 25470 | | 1.22 | 2.3E-01 | U46645.1 | NT | Rattus norvegicus mRNA for acid gated ion channel |
| 12712 | 25411 | | 1.84 | 2.3E-01 | AJ066519.1 | NT | Plasmodium falciparum distal-less like protein PwDlx-3 (PwDlx-3) mRNA, complete cds |
| 13009 | 25666 | | 2.38 | 2.3E-01 | BF475611.1 | EST_HUMAN | Rattus norvegicus mRNA for acid gated ion channel |
| 92 | 13327 | 26355 | 1.13 | 2.2E-01 | A052190.1 | EST_HUMAN | nec39h12.x1 Lupskid_cobito_nerve Homo sapiens cDNA clone IMAGE:3395950 3' similar to contains element |
| 1598 | 14749 | 27833 | 2.74 | 2.2E-01 | AF187850.1 | EST_HUMAN | MER38 repetitive element; |
| 2155 | 16291 | 28418 | 2.18 | 2.2E-01 | M34840.1 | NT | oz14610.x1 Soares_fetal_liver_spleen_INFLS_S1 Homo sapiens cDNA clone IMAGE:1675280 3' similar to |
| 2478 | 15803 | 28728 | 7.16 | 2.2E-01 | BF677638.1 | EST_HUMAN | TR:Q13040 Q13040 ATP-BINDING CASSETTE PROTEIN; |
| 2654 | 15777 | 28890 | 1.63 | 2.2E-01 | BE618296.1 | EST_HUMAN | Homo sapiens PPAR delta gene, promoter region |
| 2854 | 15777 | 28891 | 1.63 | 2.2E-01 | BE618296.1 | EST_HUMAN | Fresh-water sponge Emfr1 alpha collagen (COLF1) gene |
| 2846 | 16123 | 29136 | 4.94 | 2.2E-01 | BE156625.1 | EST_HUMAN | 60208508F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4249969 5' |
| 2946 | 16123 | 29137 | 4.94 | 2.2E-01 | BE156625.1 | EST_HUMAN | 601462629F1 NIH_MGC_87 Homo sapiens cDNA clone IMAGE:3866190 5' |
| 2987 | 16163 | | 2.07 | 2.2E-01 | AF020503.1 | NT | 601462629F1 NIH_MGC_87 Homo sapiens cDNA clone IMAGE:3866190 5' |
| 3479 | 16846 | | 2.35 | 2.2E-01 | AL161562.2 | NT | PM2-HT0353-281239-003-a12 HT0353 Homo sapiens cDNA |
| | | | | | | | PM2-HT0353-281239-003-a12 HT0353 Homo sapiens cDNA |
| | | | | | | | Homo sapiens FRA3B common fragile region, diadenosine triphosphate hydrolase (FHT) gene, exon 5 |
| | | | | | | | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 62 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 3948 | 17008 | 30009 | 0.62 | 2.2E-01 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 4211 | 17360 | 30349 | 0.69 | 2.2E-01 | AF213391.1 | NT | Mus musculus ATP-binding cassette protein (Abcb8) mRNA, partial cds |
| 4242 | 17388 | | 0.8 | 2.2E-01 | U68174.1 | NT | Mus musculus breast/ovarian cancer susceptibility protein (BRCA1) mRNA, complete cds |
| 4328 | 17471 | | 1.07 | 2.2E-01 | AF119102.1 | NT | Drosophila melanogaster UNC-119 (unc-119) gene, complete cds |
| 4335 | 17478 | 30460 | 6.62 | 2.2E-01 | AF155142.1 | NT | Mus musculus mixed lineage kinase 3 (Mik3) and two pore domain K+ channel subunit (Kcnk8) genes, complete cds |
| 4378 | 17522 | 30502 | 2.74 | 2.2E-01 | AF117340.1 | NT | Mus musculus MAP kinase kinase 1 (Meck1) mRNA, complete cds |
| 4379 | 17622 | 30803 | 2.74 | 2.2E-01 | AF117340.1 | NT | Mus musculus MAP kinase kinase 1 (Meck1) mRNA, complete cds |
| 4475 | 17615 | 30595 | 1.07 | 2.2E-01 | U01307.1 | NT | Human scRNA (BC200 beta) pseudogene |
| 4475 | 17615 | 30596 | 1.07 | 2.2E-01 | U01307.1 | NT | Human scRNA (BC200 beta) pseudogene |
| 4947 | 18077 | | 1.08 | 2.2E-01 | D80604.1 | NT | Human beta-cytoplasmic actin (ACTBP9) pseudogene |
| 4952 | 18082 | 31058 | 2.2 | 2.2E-01 | AA211216.1 | EST_HUMAN | z887c05.1 Stratagene hNT neuron (8837233) Homo sapiens cDNA clone IMAGE:648968 5' |
| 5156 | 18278 | | 1.67 | 2.2E-01 | L13289.1 | EST_HUMAN | Mus musculus thrculin gene, exon 3 |
| 5228 | 18348 | 31319 | 1.34 | 2.2E-01 | BE141035.1 | EST_HUMAN | MRO-HT0087-201088-002-c10 HT0087 Homo sapiens cDNA |
| 5863 | 19053 | 32360 | 1.89 | 2.2E-01 | 5803002 | NT | Homo sapiens diaphanous (Drosophila, homolog) 2 (DIAPH2), transcript variant 156, mRNA |
| 5874 | 19084 | | 3.75 | 2.2E-01 | D84000.1 | NT | Synechocystis sp. PCC6803 complete genome, 19/27, 2392729-2539999 |
| 6122 | 19301 | 32840 | 0.78 | 2.2E-01 | U67087.1 | NT | Gallus gallus T-box containing protein (Ch-Tbx7) mRNA, complete cds |
| 6122 | 19301 | 32841 | 0.78 | 2.2E-01 | U67087.1 | NT | Gallus gallus T-box containing protein (Ch-Tbx7) mRNA, complete cds |
| 6845 | 18998 | 33405 | 0.77 | 2.2E-01 | AB038490.1 | NT | Homo sapiens gene for fukutin, complete cds |
| 7168 | 20299 | 33742 | 10.63 | 2.2E-01 | AV756238.1 | EST_HUMAN | AV756238 BM Homo sapiens cDNA clone BMFAHC06 5' |
| 7278 | 20362 | 33815 | | | | NT | Streptococcus pyogenes phosphatidylglycerophosphate synthase (pgsA) and ABC transporter ATP-binding protein (stpA) genes, complete cds; and unknown genes |
| 7278 | 20362 | 33816 | 1.61 | 2.2E-01 | AF082738.1 | NT | Streptococcus pyogenes phosphatidylglycerophosphate synthase (pgsA) and ABC transporter ATP-binding protein (stpA) genes, complete cds; and unknown genes |
| 7442 | 20519 | 33931 | 2.36 | 2.2E-01 | M24136.1 | NT | Human glycoprotein B gene, exon 4 |
| 7442 | 20519 | 33992 | 2.38 | 2.2E-01 | M24136.1 | NT | Human glycoprotein B gene, exon 4 |
| 7655 | 20723 | 34198 | 0.62 | 2.2E-01 | AE000035.2 | NT | Mycoplasma pneumoniae M129 section 45 of 63 of the complete genome |
| 7878 | 20830 | 34436 | 0.88 | 2.2E-01 | AF287987.1 | NT | Homo sapiens homeobox B7 (HOXB7) gene, partial cds; and homeobox B6 (HOXB6), homeobox B5 (HOXB5), homeobox B4 (HOXB4), and homeobox B3 (HOXB3) genes, complete cds |
| 7903 | 20957 | 34463 | 0.71 | 2.2E-01 | AB024553.1 | NT | Bacillus halodurans DNA, complete and partial cds, strain C-125 |
| 8210 | 21292 | | 2.45 | 2.2E-01 | AF155143.1 | NT | Mus musculus nm23-M1 gene, promoter region |
| 8290 | 21362 | 34881 | 2.68 | 2.2E-01 | Z48833.1 | NT | E.coli sepA and sepB genes |
| 8748 | 21827 | 35363 | 0.61 | 2.2E-01 | AJ132918.1 | NT | Pan troglodytes MeCP2 gene 3'UTR |
| 9083 | 22162 | 35705 | 0.52 | 2.2E-01 | L23312.1 | NT | Mouse HD protein mRNA, complete cds |

Table 4

Single Exon Probe Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8083 | 22162 | 35706 | 0.52 | 2.2E-01 | L23312.1 | NT | Mouse HD protein mRNA, complete cds |
| 8087 | 22176 | 35720 | 4.59 | 2.2E-01 | AE001713.1 | NT | Thermoboga maritima section 25 of 136 of the complete genome |
| 9117 | 22166 | 35740 | 0.48 | 2.2E-01 | U09964.1 | NT | Mus musculus ICR/Swiss glycerinaldehyde 3-phosphate dehydrogenase (Gapdh-S) gene, complete cdo |
| 9224 | 22302 | | 2.88 | 2.2E-01 | AW855039.1 | EST_HUMAN | PM3-CT0263-241289-009-507 CT0263 Homo sapiens cDNA |
| 9315 | 22381 | 35942 | 1.98 | 2.2E-01 | 8383247 | NT | Mus musculus deformed epidermal autoregulatory factor 1 (Droscophila) (Dera1), mRNA |
| 9369 | 22473 | 36039 | 1.13 | 2.2E-01 | BF376354.1 | EST_HUMAN | MR1-TN0045-110900-008-c02 TN0045 Homo sapiens cDNA |
| 9489 | 22546 | 36109 | 1.42 | 2.2E-01 | W02988.1 | EST_HUMAN | z04908.1 Soares melanocyte 2Nblm-Homo sapiens cDNA clone IMAGE:291591 5' |
| 9507 | 22773 | 36345 | 15.08 | 2.2E-01 | P48634 | SWISSPROT | LARGE PROLINE-RICH PROTEIN BAT2 (HLA-B-ASSOCIATED TRANSCRIPT 2) |
| 9552 | 22617 | 36187 | 0.75 | 2.2E-01 | AJ009839.1 | NT | Xenopus laevis mRNA for kinesin-like protein 3 (klp3) |
| 9563 | 22705 | 36271 | 1.05 | 2.2E-01 | 7657428 | NT | Mus musculus osteoblast specific factor 2 (OSF-2), mRNA |
| 9578 | 22718 | 36286 | 4.29 | 2.2E-01 | M89643.1 | NT | Brachydanio rerio ependymal beta and gamma chains (Epo) gene, complete cds |
| 9820 | 22860 | 36441 | 0.65 | 2.2E-01 | Q80380 | SWISSPROT | CYCLOC NUCLEOTIDE GATED CHANNEL, ROD PHOTORECEPTOR, ALPHA SUBUNIT (CNG CHANNEL 3) (CNG-3) (CNG3) |
| 10020 | 23058 | 36654 | 3.84 | 2.2E-01 | AF197941.1 | NT | Funaria hygrometrica chloroplast-localized small heat shock protein (CPeHSP21) mRNA, complete cds; nuclear gene for chloroplast product |
| 10159 | 23188 | 36792 | 1.53 | 2.2E-01 | BF206507.1 | EST_HUMAN | 60186972AF1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4100189 5' |
| 10360 | 23415 | 37024 | 1.11 | 2.2E-01 | 9826671 | NT | Human herpesvirus 6, complete genome |
| 10540 | 23575 | 37182 | 0.65 | 2.2E-01 | T59472.1 | EST_HUMAN | y683408.1 Strategene ovary (8937217) Homo sapiens cDNA clone IMAGE:75855 5' |
| 10540 | 23575 | 37183 | 0.65 | 2.2E-01 | T59472.1 | EST_HUMAN | y683408.1 Strategene ovary (8937217) Homo sapiens cDNA clone IMAGE:75855 5' |
| 10580 | 23615 | 37220 | 0.6 | 2.2E-01 | AF088264.1 | NT | Pseudomonas aeruginosa quihoprotein ethanol dehydrogenase (exaA) gene, partial cds; cytochrome c550 precursor (exaB), NAD+ dependent acetaldehyde dehydrogenase (exaC), and pyrroloquinone quinone synthesis A (pqdA) genes, complete cds; and pyrroloquin> |
| 10659 | 23693 | | 0.79 | 2.2E-01 | AF071001.1 | NT | Mus musculus PHR1 (Phr1) gene, partial cds |
| 10707 | 23740 | 37344 | 0.57 | 2.2E-01 | AE001562.1 | NT | Helicobacter pylori, strain J99 section 123 of 132 of the complete genome |
| 10707 | 23740 | 37345 | 0.57 | 2.2E-01 | AE001562.1 | NT | Helicobacter pylori, strain J99 section 123 of 132 of the complete genome |
| 10853 | 23888 | 37605 | 0.48 | 2.2E-01 | AF049720.1 | NT | Homo sapiens neuronal nitric oxide synthase (NOS1) gene, alternative exon 11 and A3 |
| 11389 | 24450 | 38111 | 1.65 | 2.2E-01 | AF257772.1 | NT | Homo sapiens RNA binding protein MCG10 gene, complete cds, alternatively spliced |
| 11707 | 24704 | 38398 | 5.09 | 2.2E-01 | X01918.1 | NT | Drosophila 68C glue gene cluster |
| 11748 | 23834 | 37560 | 3.7 | 2.2E-01 | 7708215 | NT | Homo sapiens H-2K binding factor-2 (LOC51580), mRNA |
| 12207 | 25161 | | 1.33 | 2.2E-01 | BE870839.1 | EST_HUMAN | 601446957F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3860670 5' |
| 12319 | 28156 | | 1.98 | 2.2E-01 | U82671.2 | NT | Homo sapiens chromosome Xq28 melanoma antigen family A2a (MAGEA2A), melanoma antigen family A12 (MAGEA12), melanoma antigen family A2b (MAGEA2B), melanoma antigen family A3 (MAGEA3), caltactin (CALT), NAD(P)H dehydrogenase-like protein (NSDHL), end LI> |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 12407 | 25286 | | 3.24 | 2.2E-01 | AF188843.1 | NT | Vitis vinifera cultivar Pinot Noir plasma membrane aquaporin (PIP1a) mRNA, complete cds |
| 12518 | 18492 | 31631 | 1.86 | 2.2E-01 | AW381038.1 | EST_HUMAN | RC1-CT0249-141189-021-g04 CT0249 Homo sapiens cDNA |
| 12519 | 25353 | | 1.47 | 2.2E-01 | AW661822.1 | EST_HUMAN | h17b02.x1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2972823 3' |
| 13116 | 28148 | | 3.08 | 2.2E-01 | AV694801.1 | EST_HUMAN | AV694801 GKG Homo sapiens cDNA clone GKCAH502 5' |
| 993 | 14165 | 27226 | 1.88 | 2.1E-01 | AA569289.1 | EST_HUMAN | rm31a1.s1 NCI_CGAP_Lip2 Homo sapiens cDNA clone IMAGE:1061804 |
| 998 | 14167 | 27228 | 0.72 | 2.1E-01 | AL161604.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 18 |
| 1148 | 14312 | | 2.43 | 2.1E-01 | AE002314.2 | NT | Chlamydia muridarum, section 45 of 85 of the complete genome |
| 1228 | 14385 | 27446 | 1.45 | 2.1E-01 | 6754239 | NT | Mus musculus Interferon (alpha and beta) receptor 2 (Inar2), mRNA |
| 1225 | 14385 | 27447 | 1.45 | 2.1E-01 | 6754239 | NT | Mus musculus Interferon (alpha and beta) receptor 2 (Inar2), mRNA |
| 1640 | 14682 | 27771 | 4.29 | 2.1E-01 | AJ249895.1 | NT | Mus musculus mas proto-oncogene and IgT2 gene for Insulin-like growth factor type 2 and L41pe and Au79 pseudogenes |
| 1963 | 15106 | 28208 | 2.15 | 2.1E-01 | AA906824.1 | EST_HUMAN | cd73a02.e1 NCI_CGAP_GC4 Homo sapiens cDNA clone IMAGE:1618810 3' similar to gb:K02785 |
| 2224 | 16358 | 28488 | 3.55 | 2.1E-01 | BF65073.1 | EST_HUMAN | COMPLEMENT C3 PRECURSOR (HUMAN); |
| 2891 | 18167 | 29183 | 2.52 | 2.1E-01 | 6912445 | NT | 602083129F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4247603 5' |
| 3533 | 18688 | 29709 | 6.1 | 2.1E-01 | AA639482.1 | EST_HUMAN | Homo sapiens potassium voltage-gated channel, subfamily H (eag-related), member 4 (KCNH4), mRNA |
| 3908 | 17067 | | 6.81 | 2.1E-01 | 9838961 | NT | rq9b510.e1 NCI_CGAP_C88 Homo sapiens cDNA clone IMAGE:1169579 3' |
| 4125 | 17279 | | 0.67 | 2.1E-01 | AE001793.1 | NT | Beta vulgaris mitochondrion, complete genome |
| 4165 | 17315 | 30310 | 1.57 | 2.1E-01 | P11675 | SWISSPROT | Thermoga maritima section 105 of 136 of the complete genome |
| 4165 | 17315 | 30311 | 1.67 | 2.1E-01 | P11675 | SWISSPROT | IMMEDIATE-EARLY PROTEIN IE180 |
| 4485 | 17635 | | 1.63 | 2.1E-01 | AB033041.1 | NT | IMMEDIATE-EARLY PROTEIN IE180 |
| 4689 | 17834 | 30819 | 1.82 | 2.1E-01 | AB010273.1 | NT | Homo sapiens mRNA for KIAA1215 protein, partial cds |
| 4767 | 17892 | 30871 | 0.93 | 2.1E-01 | X83161.1 | NT | Homo sapiens pshp47 gene, complete cds |
| 5138 | 18281 | 31228 | 0.7 | 2.1E-01 | D13567.1 | NT | P.faciapanum mRNA for small GTPase reb11 |
| 5416 | 18618 | 31692 | 6.31 | 2.1E-01 | BF872695.1 | EST_HUMAN | Lampetra japonica mRNA for alpha-2-macroglobulin, complete cds |
| 7027 | 20163 | 33585 | 1.05 | 2.1E-01 | AJ223392.1 | NT | 602182001F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4263001 5' |
| 7038 | 20091 | 33508 | 1.8 | 2.1E-01 | U04842.1 | NT | Doto fragilis mitochondrial 16S rRNA gene, partial |
| 7564 | 20638 | 34111 | 0.77 | 2.1E-01 | Q01956 | SWISSPROT | Human olfactory receptor (OR17-2) gene, partial cds |
| 7564 | 20638 | 34112 | 0.77 | 2.1E-01 | Q01956 | SWISSPROT | VOLTAGE-GATED POTASSIUM CHANNEL PROTEIN KV3.3 (KSHIID) |
| 7576 | 20847 | | 1.89 | 2.1E-01 | AE000972.1 | NT | VOLTAGE-GATED POTASSIUM CHANNEL PROTEIN KV3.3 (KSHIID) |
| 7893 | 20935 | 34441 | 1.54 | 2.1E-01 | AF000949.1 | NT | Archaeoglobus fulgidus section 135 of 172 of the complete genome |
| 7930 | 20980 | | 1.38 | 2.1E-01 | AF068887.1 | NT | Canis familiaris keratin (KR19) gene, complete cds |
| | | | | | | | Glycine max malate dehydrogenase (Mdh-2) gene, nuclear gene encoding mitochondrial protein, partial cds |

Page 95 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 7930 | 20980 | 34489 | 1.38 | 2.1E-01 | AF068687.1 | NT | Glycine max melate dehydrogenase (Mdh-2) gene, nuclear gene encoding mitochondrial protein, partial cds |
| 8263 | 21345 | | 1.21 | 2.1E-01 | 7305030 | NT | Mus musculus erythrocyte protein band 4.1-like 3 (Epb4.1b), mRNA |
| 8700 | 21760 | 36313 | 4.76 | 2.1E-01 | U68399.1 | NT | Haemophilus influenzae hmcD, putative haemochromatosis protein (hmcD), and haemochromatosis protein (hmcD) genes, complete cds |
| 8997 | 22076 | 35615 | 0.91 | 2.1E-01 | AL040537.1 | EST_HUMAN | DKFZp434H0814.1_1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434H0814.5 |
| 8997 | 22076 | 35616 | 0.91 | 2.1E-01 | AL040537.1 | EST_HUMAN | DKFZp434H0814.1_1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434H0814.5 |
| 9169 | 22237 | | 0.5 | 2.1E-01 | AB022524.1 | NT | Homo sapiens APC gene, exon 9 |
| 9237 | 22314 | 35856 | 6.7 | 2.1E-01 | Z35786.1 | NT | S. cerevisiae chromosome II reading frame ORF YEL025w |
| 9704 | 22763 | 36323 | 0.66 | 2.1E-01 | N42538.1 | EST_HUMAN | Y11010.1 Soares melanocyte 2NBHM Homo sapiens cDNA clone IMAGE:270954.5 |
| 9704 | 22763 | 36324 | 0.66 | 2.1E-01 | N42538.1 | EST_HUMAN | Y11010.1 Soares melanocyte 2NBHM Homo sapiens cDNA clone IMAGE:270954.5 |
| 9713 | 22778 | 36348 | 2.72 | 2.1E-01 | X67378.1 | NT | A. thaliana mRNA for AIRANBP 1b protein |
| 9817 | 22857 | 36437 | 1.02 | 2.1E-01 | AB036529.1 | NT | Homo sapiens p53R2 gene for ribonucleotide reductase, exon 6 |
| 10355 | 23570 | 37178 | 1.31 | 2.1E-01 | Z57067.1 | NT | Beta vulgaris mRNA for elongation factor 1-beta |
| 10589 | 23804 | 37209 | 1.97 | 2.1E-01 | P52824 | SWISSPROT | DIACYLGLYCEROL KINASE, DELTA (DIGLYCERIDE KINASE) (DGK-DELTA) (DAG KINASE DELTA) (80 KD DIACYLGLYCEROL KINASE) |
| 10578 | 23811 | 37216 | 0.72 | 2.1E-01 | BF674294.1 | EST_HUMAN | 602131427F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4270831.5 |
| 11776 | 24768 | | 1.34 | 2.1E-01 | A1141875.1 | EST_HUMAN | qa66108.X1 Soares fetal heart NBHH19W Homo sapiens cDNA clone IMAGE:1691751.3 |
| 11892 | 24850 | 38565 | 1.68 | 2.1E-01 | 11036847 | NT | Homo sapiens pancreatic polypeptide 2 (PPY2), mRNA |
| 11879 | 24857 | | 2.6 | 2.1E-01 | BE180422.1 | EST_HUMAN | RC3-HT0622-040500-013-b11 HT0622 Homo sapiens cDNA |
| 12888 | 25459 | | 1.92 | 2.1E-01 | AF217490.1 | NT | Homo sapiens fragile 16D oxidoreductase (FOR) gene, exons 8, 9, and partial cds |
| 12994 | 25848 | | 1.39 | 2.1E-01 | BE822149.1 | EST_HUMAN | 601440712F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3915875.5 |
| 13158 | 25763 | 31928 | 1.19 | 2.1E-01 | AJ276505.1 | NT | Mus musculus genomic fragment, 279 Kb, chromosome 7 |
| 206 | 13428 | 28460 | 1.92 | 2.0E-01 | AB017437.1 | NT | Gallus gallus mRNA for avian, complete cds |
| 547 | 13740 | | 1.97 | 2.0E-01 | 7705801 | NT | Homo sapiens CGI-18 protein (LOC51008), mRNA |
| 717 | 13899 | 28937 | 1.37 | 2.0E-01 | M77085.1 | NT | O. cuniculus germline 1gH heavy chain V-H pseudogene, allele type VHa2 |
| 833 | 14011 | 27067 | 2.09 | 2.0E-01 | AF027865.1 | NT | Mus musculus Major Histocompatibility Locus class II region |
| 1036 | 14204 | 27261 | 1.83 | 2.0E-01 | D80905.1 | NT | Synechocystis sp. PCC6803 complete genome, 7/27, 781449-620915 |
| 1149 | 14313 | 27369 | 2.81 | 2.0E-01 | AL163213.2 | NT | Homo sapiens chromosome 21 segment HS21C013 |
| 1283 | 14439 | 27508 | 1.19 | 2.0E-01 | AJ132695.5 | NT | Homo sapiens rac1 gene |
| 1336 | 14493 | 27563 | 1.99 | 2.0E-01 | AW384937.1 | EST_HUMAN | PM1-HT0422-291299-002-c06 HT0422 Homo sapiens cDNA |
| 1516 | 14658 | 27752 | 22.4 | 2.0E-01 | 4503408 | NT | Homo sapiens dyslavin, alpha (DTNA), mRNA |
| 1582 | 14734 | 27815 | 2.68 | 2.0E-01 | AB007974.1 | NT | Homo sapiens mRNA, chromosome 1 specific transcript KIAA0505 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 1588 | 14740 | 27821 | 3.48 | 2.0E-01 | AF260700.1 | NT | Homo sapiens sodium/iodide symporter mRNA, partial cds |
| 1732 | 14882 | 27973 | 0.96 | 2.0E-01 | U22346.1 | NT | Human bradykinin B1 receptor (bradyb1) gene, complete cds |
| 1755 | 14904 | | 2.58 | 2.0E-01 | AF111170.3 | NT | Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene |
| 1786 | 14945 | | 3.87 | 2.0E-01 | U67525.1 | NT | Methanococcus jannaschii section 87 of 150 of the complete genome |
| 1941 | 15084 | 28185 | 1.45 | 2.0E-01 | 8922238 | NT | Homo sapiens hypothetical protein FLJ10120 (FLJ10120), mRNA |
| 2423 | 15552 | | 1.9 | 2.0E-01 | X82877.1 | NT | H. sapiens Net-D-glucose cotransport regulator gene |
| 2855 | 16132 | | 0.79 | 2.0E-01 | AF074990.1 | NT | Homo sapiens full length insert cDNA YH5A11 |
| 3576 | 16741 | 29758 | 0.72 | 2.0E-01 | P46607 | SWISSPROT | HOMEBOX PROTEIN GLABRA2 (HOMEBOX-LEUCINE ZIPPER PROTEIN ATHB-10) (HD-ZIP PROTEIN ATHB-10) |
| 3658 | 16821 | | 0.81 | 2.0E-01 | AW239005.1 | EST_HUMAN | XP1502.X1 NCL CGAP_HN9 Homo sapiens cDNA clone IMAGE:2740396 3' similar to contains element |
| 3708 | 16959 | 29983 | 0.86 | 2.0E-01 | P34841 | SWISSPROT | MER21 repetitive element: |
| 3802 | 16963 | | 0.8 | 2.0E-01 | 6880787 | NT | GED-11 PROTEIN |
| 4688 | 17623 | | 8.71 | 2.0E-01 | BE828165.1 | EST_HUMAN | Mus musculus bone morphogenetic protein 6 (Bmp6), mRNA |
| 5182 | 18274 | 31243 | 6.41 | 2.0E-01 | 8922080 | NT | QV4-EN032-180500-223-e03 EN032 Homo sapiens cDNA |
| 5243 | 18959 | 29983 | 0.8 | 2.0E-01 | P34841 | SWISSPROT | Homo sapiens hypothetical protein ASH1 (ASH1), mRNA |
| 5561 | 18758 | 31797 | 2.55 | 2.0E-01 | X66900.1 | NT | GED-11 PROTEIN |
| 5859 | 19049 | 32365 | 2.08 | 2.0E-01 | X91858.1 | NT | Rat SOD-2 gene for manganese-containing superoxide dismutase |
| 5983 | 19149 | 32464 | 0.82 | 2.0E-01 | X91858.1 | NT | Homo sapiens dual oxidase-like domains 2 (DUOX2), mRNA |
| 6185 | 19361 | 32709 | 5.99 | 2.0E-01 | U15300.1 | NT | F. rubripes DNA encoding for valyl-tRNA synthetase |
| 6303 | 19478 | | 0.74 | 2.0E-01 | M75987.1 | NT | Saccharomyces cerevisiae Hal5p (HAL5) mRNA, complete cds |
| 6559 | 19721 | 33098 | 47.65 | 2.0E-01 | X61033.1 | NT | Human hepatocyte growth factor gene, exon 1 |
| 6859 | 19818 | 33206 | 3.74 | 2.0E-01 | AW360865.1 | EST_HUMAN | Mauritius mu class glutathione transferase gene |
| 7445 | 20522 | 33985 | 1.41 | 2.0E-01 | AF250371.1 | NT | PM1-CT0247-141099-001-g08 CT0247 Homo sapiens cDNA |
| 7603 | 20673 | 34147 | 0.83 | 2.0E-01 | P64422 | SWISSPROT | Mus musculus phosphofructokinase-1 G isozyme (Pfkfb) gene, exons 3 through 7 |
| 8139 | 21271 | | 6.16 | 2.0E-01 | AF028026.1 | NT | GAMMA-GLUTAMYL TRANSPEPTIDASE PRECURSOR |
| 8395 | 21478 | 35003 | 3.12 | 2.0E-01 | X91151.1 | NT | Andes virus strain O123133 glycoprotein G1 and G2 precursor, gene, partial cds |
| 8921 | 22000 | | 0.48 | 2.0E-01 | BE562247.1 | EST_HUMAN | M. musculus scp2 gene exon 14 |
| 9551 | 22616 | 36188 | 1.17 | 2.0E-01 | U82511.1 | NT | 601344848F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3617794 5' |
| 9590 | 22845 | 36215 | 0.62 | 2.0E-01 | U71122.1 | NT | Dicotyledonum discoidium random s1ug cDNA19 protein (rec19) mRNA, partial cds |
| 9756 | 22894 | | 5.42 | 2.0E-01 | AE001278.1 | NT | Arabidopsis pyruvate decarboxylase-2 (Pdc2) gene, complete cds |
| 9947 | 22886 | 36579 | 0.52 | 2.0E-01 | P11420 | SWISSPROT | Chlamydia trachomatis section 5 of 87 of the complete genome |
| 10095 | 23133 | | 2.24 | 2.0E-01 | AF146592.1 | NT | DAUGHTERLESS PROTEIN |
| | | | | | | SWISSPROT | DAUGHTERLESS PROTEIN |
| | | | | | | NT | Homo sapiens fibronin 2 (FN2) mRNA, complete cds |

Page 97 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 10247 | 23282 | 36878 | 1.89 | 2.0E-01 | AF086907.1 | NT | Arabidopsis thaliana root gravitropism control protein (PIN2) gene, complete cds |
| 10247 | 23282 | 36878 | 1.89 | 2.0E-01 | AF086907.1 | NT | Arabidopsis thaliana root gravitropism control protein (PIN2) gene, complete cds |
| 10371 | 23406 | 37016 | 0.67 | 2.0E-01 | AF157814.1 | NT | Homo sapiens cAMP specific phosphodiesterase (PDE4C) gene, exons 2 through 12 |
| 10371 | 23406 | 37017 | 0.67 | 2.0E-01 | AF157814.1 | NT | Homo sapiens cAMP specific phosphodiesterase (PDE4C) gene, exons 2 through 12 |
| 10418 | 23454 | | 0.8 | 2.0E-01 | X78388.1 | NT | D.melanogaster DNA mobile element (hoppe) |
| 10616 | 23650 | 37289 | 0.88 | 2.0E-01 | X87121.1 | NT | R.norvegicus mRNA for NTR2 receptor |
| 11079 | 24154 | 37791 | 2.12 | 2.0E-01 | D89088.1 | NT | Salvelinus pluvius mRNA for transferin, complete cds |
| 11079 | 24154 | 37792 | 2.12 | 2.0E-01 | D89088.1 | NT | Salvelinus pluvius mRNA for transferin, complete cds |
| 11808 | 24855 | 38597 | 1.33 | 2.0E-01 | | NT | Chlorella vulgaris chloroplast, complete genome |
| 11808 | 24855 | 38598 | 1.33 | 2.0E-01 | 7524759 | NT | Chlorella vulgaris chloroplast, complete genome |
| 12666 | 25443 | | 1.24 | 2.0E-01 | AF205637.2 | NT | Plimephales promelas liver glucose-6-phosphate-1-dehydrogenase mRNA, partial cds |
| 12899 | 25865 | | 1.64 | 2.0E-01 | AF302773.1 | NT | Homo sapiens ninein-Lm isoform (ninein) mRNA, complete cds |
| 12912 | 25876 | 31851 | 1.63 | 2.0E-01 | AW974287.1 | EST_HUMAN | EST387405 MAGE resequenced, MAGN Homo sapiens cDNA |
| 12952 | 25862 | 31856 | 1.63 | 2.0E-01 | A023562.1 | EST_HUMAN | ov00a10.31 Soerres testis_NHT Homo sapiens cDNA clone IMAGE:1643610 3' |
| 12977 | 25636 | | 17.48 | 2.0E-01 | AF078164.2 | NT | Homo sapiens Ku70-binding protein (KUB3) mRNA, partial cds |
| 113 | 13344 | | 4.89 | 1.9E-01 | 7549743 | NT | Rattus norvegicus Aryl hydrocarbon receptor nuclear translocator 1 (Ahr1), mRNA |
| 362 | 13573 | 26604 | 5.58 | 1.9E-01 | AF004353.1 | NT | Mus musculus pale ear (ep) gene, wild type allele, 3' region, partial cds |
| 673 | 13859 | 26889 | 1.54 | 1.9E-01 | U32581.2 | NT | Homo sapiens lambda101a protein kinase C-interacting protein mRNA, complete cds |
| 673 | 13859 | 26890 | 1.64 | 1.9E-01 | U32581.2 | NT | Homo sapiens lambda101a protein kinase C-interacting protein mRNA, complete cds |
| 680 | 13868 | 26897 | 8.31 | 1.9E-01 | BE070801.1 | EST_HUMAN | RC3-BT0502-251199-011-001 BT0502 Homo sapiens cDNA |
| 681 | 13868 | 26897 | 6.7 | 1.9E-01 | BE070801.1 | EST_HUMAN | RC3-BT0502-251199-011-001 BT0502 Homo sapiens cDNA |
| 1010 | 14181 | | 1.72 | 1.9E-01 | 7305180 | NT | Mus musculus Interleukin 2 receptor, gamma chain (IL2rg), mRNA |
| 1128 | 14293 | 27349 | 5.63 | 1.9E-01 | AA358813.1 | EST_HUMAN | EST67764 Fetal lung II Homo sapiens cDNA 5' end |
| 1401 | 14555 | 27629 | 2.42 | 1.9E-01 | AF061282.1 | NT | Sorghum bicolor 22 kDa kauffin cluster |
| 1456 | 14620 | | 4.34 | 1.9E-01 | AF184623.1 | NT | Plasmodium vivax reticulocyte binding protein-2 (rbp-2) gene, complete cds |
| 2456 | 16584 | 28711 | 3.66 | 1.9E-01 | 8922633 | NT | Homo sapiens hypodermal protein FLJ10561 (FLJ10561), mRNA |
| 2989 | 16165 | 29181 | 3.81 | 1.9E-01 | U66098.1 | NT | Sigmundon hispidus p53 gene, partial cds |
| 3004 | 16178 | | 7.93 | 1.9E-01 | J00922.1 | NT | Gallus gallus ovalbumin (Y) gene, complete cds |
| 3482 | 16650 | 29666 | 4.07 | 1.9E-01 | D13197.1 | NT | Mouse gene for immunoglobulin diversity region D1 |
| 3569 | 16734 | 29760 | 4.94 | 1.9E-01 | R16467.1 | EST_HUMAN | Y4210.11 Soares fetal liver spleen 1NF15 Homo sapiens cDNA clone IMAGE:128547 5' |
| 3907 | 17068 | 30065 | 1.09 | 1.9E-01 | AF284017.1 | NT | Rattus norvegicus arylacetamide deacetylase gene, complete cds |
| 4100 | 17255 | 30256 | 3.68 | 1.9E-01 | AB005784.1 | NT | Schizosaccharomyces pombe DNA for cytoplasmic dynein heavy chain, complete cds |
| 4193 | 17343 | 30338 | 1.51 | 1.9E-01 | AW754108.1 | EST_HUMAN | CM3-CT0315-271199-045-b11 CT0315 Homo sapiens cDNA |
| 4261 | 17397 | | 1.31 | 1.9E-01 | AE001812.1 | NT | Delphococcus radiodurans R1 section 49 of 229 of the complete chromosome 1 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 4348 | 17489 | 30471 | 0.89 | 1.9E-01 | BE834843.1 | EST_HUMAN | MR1-FN0010-280700-007-d04 FN0010 Homo sapiens cDNA |
| 4592 | 17729 | 30711 | 0.8 | 1.9E-01 | AL161493.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 5 |
| 6124 | 18250 | | 1.08 | 1.9E-01 | AF223842.1 | NT | Rattus norvegicus chemokine receptor CXCR3 mRNA, complete cds |
| 5721 | 18914 | | 5.19 | 1.9E-01 | AW130149.1 | EST_HUMAN | x28a07.x1 NCL CGAP_U11 Homo sapiens cDNA clone IMAGE:2819444 3' similar to gb:M73779 RETINOIC |
| 5761 | 18953 | 32256 | 8.03 | 1.9E-01 | AF127937.1 | NT | ACID RECEPTOR ALPHA-1 (HUMAN); |
| 5952 | 19148 | 32463 | 1.08 | 1.9E-01 | AF081216.1 | NT | Homo sapiens DNA polymerase epsilon catalytic subunit protein (POLE1) gene, exon 1a |
| 6008 | 19191 | | 2.45 | 1.9E-01 | AU133116.1 | EST_HUMAN | Mus musculus Wm protein (Wm) gene, complete cds |
| 6457 | 19824 | 32687 | 1.03 | 1.9E-01 | AU1762391.1 | EST_HUMAN | AU133116 NT2RP4 Homo sapiens cDNA clone NT2RP4001328 6' |
| 6518 | 19883 | 33034 | 1.1 | 1.9E-01 | AW148452.1 | EST_HUMAN | w54h02.x1 NCL CGAP_Co18 Homo sapiens cDNA clone IMAGE:2394089 3' |
| 7112 | 18538 | 31495 | 1.54 | 1.9E-01 | R43212.1 | EST_HUMAN | x14c08.x1 NCL CGAP_Kid8 Homo sapiens cDNA clone IMAGE:2818030 3' similar to gb:X03569 ATP |
| 7138 | 20273 | 33712 | 0.74 | 1.9E-01 | AF034920.1 | NT | SYNTHASE BETA CHAIN, MITOCHONDRIAL PRECURSOR (HUMAN); |
| 7138 | 20273 | 33713 | 0.74 | 1.9E-01 | AF034920.1 | NT | yg09a12.a1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:31863 3' similar to contains MER13 |
| 7408 | 20487 | 33957 | 0.92 | 1.9E-01 | U73846.1 | NT | repetitive element; |
| 7638 | 20707 | 34186 | 0.78 | 1.9E-01 | U93688.1 | NT | Homo sapiens tubby like protein 1 (TULP1) gene, exons 9-11 |
| 7681 | 20728 | 34204 | 1.38 | 1.9E-01 | U80922.1 | NT | Homo sapiens tubby like protein 1 (TULP1) gene, exons 9-11 |
| 7708 | 20773 | 34258 | 2.64 | 1.9E-01 | AF072724.1 | NT | Drosophila melanogaster testis-specific RNA-binding protein (bruno) mRNA, complete cds |
| 8174 | 21256 | 34778 | 1.83 | 1.9E-01 | AL161567.2 | NT | Staphylococcus aureus toxic shock syndrome toxin-1 (tsst), enterotoxin (ent), and integrase (int) genes, complete cds |
| 8885 | 21964 | 35500 | 13.98 | 1.9E-01 | AB033024.1 | NT | Arabidopsis thaliana serine/threonine protein phosphatase type one (TOPP8) gene, complete cds |
| 9148 | 22225 | 35768 | 1.5 | 1.9E-01 | M14968.1 | NT | Zea mays starch branching enzyme 1 (sbe1) gene, complete cds |
| 9148 | 22225 | 35769 | 1.5 | 1.9E-01 | M14968.1 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 57 |
| 10079 | 23117 | 38719 | 0.77 | 1.9E-01 | AA812486.1 | EST_HUMAN | Homo sapiens mRNA for KIAA1198 protein, partial cds |
| 10447 | 23482 | 37080 | 0.81 | 1.9E-01 | BE830353.1 | EST_HUMAN | Marsupial cat beta-globin gene mRNA, partial cds |
| 10447 | 23482 | 37091 | 0.81 | 1.9E-01 | BE830353.1 | EST_HUMAN | Marsupial cat beta-globin gene mRNA, partial cds |
| 10880 | 23965 | 37593 | 1.38 | 1.9E-01 | AL161503.2 | NT | repetitive element; |
| 10880 | 23965 | 37594 | 1.38 | 1.9E-01 | AL161503.2 | NT | RC5-E10082-060700-022-A02 E10082 Homo sapiens cDNA |
| 10932 | 24071 | 37704 | 2.18 | 1.9E-01 | AF223391.1 | NT | RC5-E10082-060700-022-A02 E10082 Homo sapiens cDNA |
| 12025 | 25009 | 38711 | 2.21 | 1.9E-01 | AJ243213.1 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 15 |
| 12047 | 25028 | 38735 | 1.48 | 1.9E-01 | L07344.1 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 15 |
| | | | | | | | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| | | | | | | | Homo sapiens partial S-HT4 receptor gene, exons 2 to 5 |
| | | | | | | | Influenza A/Guangdong/243/72 nucleoprotein (seg 5) gene, 5' end |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 32 | 13270 | 26274 | 1.85 | 1.8E-01 | U73200.1 | NT | Mus musculus p116Rip mRNA, complete cds |
| 270 | 16009 | 26519 | 1.47 | 1.8E-01 | AB022090.1 | NT | Mus musculus Ccig gene for chaperonin containing TCP-1 gamma subunit, partial cds |
| 381 | 13589 | 26625 | 1.9 | 1.8E-01 | 4502532 | NT | Homo sapiens calcium channel, voltage-dependent, beta 2 subunit (CACNB2) mRNA, and translated products |
| 765 | 13946 | 26983 | 0.78 | 1.8E-01 | AB021480.2 | NT | Oryzias latipes gene for membrane guanylyl cyclase OIGC1, complete cds |
| 1005 | 14176 | 27235 | 1.8 | 1.8E-01 | AF191221.1 | EST_HUMAN | wf7102.x1 NCI CGAP Lu24 Homo sapiens cDNA clone IMAGE:2337051 3' |
| 1115 | 14279 | 27335 | 2.14 | 1.8E-01 | AF000580.1 | NT | Dicotyledonum discoidium plasmid Ddp5, complete genome |
| 1317 | 14473 | 27540 | 6.87 | 1.8E-01 | AL117189.1 | NT | Yersinia pestis plasmid pCD1 |
| 1533 | 14686 | 27765 | 1.49 | 1.8E-01 | 6753947 | NT | Mus musculus guanylate nucleotide binding protein 1 (Gbp1), mRNA |
| 1633 | 14686 | 27768 | 1.49 | 1.8E-01 | 6753947 | NT | Mus musculus guanylate nucleotide binding protein 1 (Gbp1), mRNA |
| 1915 | 15058 | | 1.91 | 1.8E-01 | AF733708.1 | EST_HUMAN | qg22d10.x5 NCI CGAP K163 Homo sapiens cDNA clone IMAGE:1761811 3' similar to TR:076938 O75838 GAMMA BUTYROBETAINE HYDROXYLASE ; |
| 1985 | 15108 | 28208 | 2.28 | 1.8E-01 | AB051897.1 | NT | Mus musculus Scya6, Scya9, Scya16-ps, Scya5 genes for small inducible cytokine A6 precursor, small inducible cytokine A9 precursor, Scya16 pseudogene, small inducible cytokine A5 precursor, complete cds |
| 2756 | 18873 | | 3.34 | 1.8E-01 | AW895728.1 | EST_HUMAN | QV3-DT0018-081289-038-g04 DT0018 Homo sapiens cDNA |
| 2863 | 16140 | | 2.3 | 1.8E-01 | AF184869.1 | NT | Jonopsidium aculea LEAFY protein (LEAFY2) gene, partial cds |
| 2868 | 16144 | 29163 | 1.16 | 1.8E-01 | AW182300.1 | EST_HUMAN | y41p03.x1 Soares_NFL_I_GBC_S1 Homo sapiens cDNA clone IMAGE:2659789 3' |
| 3184 | 16369 | 29375 | 1.81 | 1.8E-01 | AW895178.1 | EST_HUMAN | QV0-BN0041-070300-147-g04 BN0041 Homo sapiens cDNA |
| 3452 | 16819 | 29638 | 0.77 | 1.8E-01 | BF183582.1 | EST_HUMAN | 601809729R1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:4040821 3' |
| 3712 | 16873 | 29877 | 0.87 | 1.8E-01 | H03369.1 | EST_HUMAN | y45e01.s1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:161704 3' similar to contains Alu repetitive element |
| 3712 | 16873 | 29878 | 0.87 | 1.8E-01 | H03369.1 | EST_HUMAN | y45e01.s1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:161704 3' similar to contains Alu repetitive element |
| 4453 | 17593 | | 0.92 | 1.8E-01 | D37954.1 | NT | Bovine NB28 mRNA for MHC class II (BoLA-DQB), complete cds |
| 4678 | 17813 | 30801 | 5.51 | 1.8E-01 | AL161558.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 68 |
| 4895 | 18025 | 31011 | 2.69 | 1.8E-01 | AB051897.1 | NT | Mus musculus Scya6, Scya9, Scya16-ps, Scya5 genes for small inducible cytokine A6 precursor, small inducible cytokine A9 precursor, Scya16 pseudogene, small inducible cytokine A5 precursor, complete cds |
| 5129 | 18284 | 31219 | 0.65 | 1.8E-01 | X78784.1 | NT | N.tabacum mRNA pNLA-35 |
| 5158 | 18280 | 31245 | 1.79 | 1.8E-01 | AW814270.1 | EST_HUMAN | MR3-ST0203-151289-112-g08 ST0203 Homo sapiens cDNA |
| 5208 | 18327 | 31297 | 2.55 | 1.8E-01 | AF181258.1 | NT | Mesocricetus auratus Nucleoside cotransporting polypeptide mRNA, partial cds |
| 5218 | 18340 | 31313 | 0.89 | 1.8E-01 | AK439881.1 | EST_HUMAN | h57e04.x1 NCI CGAP_Lym12 Homo sapiens cDNA clone IMAGE:2134590 3' |
| 5291 | 18409 | 31378 | 1.2 | 1.8E-01 | Y08310.1 | NT | M.bairdii mtaC and mtaB genes |

Page 100 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 5413 | 18615 | 31589 | 0.51 | 1.8E-01 | BE02828.1 | EST_HUMAN | RC8-BT0841-300300-011-H03 BT0841 Homo sapiens cDNA |
| 5929 | 19115 | 32428 | 1.19 | 1.8E-01 | AL161594.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 90 |
| 6047 | 19230 | 32554 | 0.95 | 1.8E-01 | N28629.1 | EST_HUMAN | Y338108.1 Soares melanocyte 2N6HM Homo sapiens cDNA clone IMAGE:284083 5' |
| 6256 | 19430 | 32776 | 0.89 | 1.8E-01 | 6078428 | NT | Mus musculus Trif receptor-associated factor 8 (Traf8), mRNA |
| 6256 | 19430 | 32777 | 0.89 | 1.8E-01 | 6078428 | NT | Mus musculus Trif receptor-associated factor 8 (Traf8), mRNA |
| 6841 | 19600 | 33189 | 1.16 | 1.8E-01 | Q9QY14 | SWISSPROT | FORKHEAD BOX PROTEIN E3 |
| 6888 | 19646 | | 2.12 | 1.8E-01 | N94853.1 | EST_HUMAN | W62H02.1 Soares multiple sclerosis 2N6HMSP Homo sapiens cDNA clone IMAGE:278163 5' |
| 7146 | 20281 | 33722 | 1.11 | 1.8E-01 | AB018561.1 | NT | Citrus limonius mRNA for wus, complete cds |
| 7146 | 20281 | 33723 | 1.11 | 1.8E-01 | AB018561.1 | NT | Citrus limonius mRNA for wus, complete cds |
| 7202 | 20667 | 33477 | 0.87 | 1.8E-01 | BE091353.1 | EST_HUMAN | 601648361R2 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:3632247 3' |
| 7604 | 20674 | 34148 | 0.81 | 1.8E-01 | AP001511.1 | NT | Bacillus halodurans genomic DNA, section 5/14 |
| 8810 | 21889 | 35431 | 0.58 | 1.8E-01 | AW066118.1 | EST_HUMAN | EST378191 IMAGE resequences, MAG1 Homo sapiens cDNA |
| 9543 | 22608 | 38176 | 1.59 | 1.8E-01 | M73253.1 | NT | Human cellular DNA/Human papillomavirus proviral DNA |
| 9574 | 22716 | 36284 | 1.62 | 1.8E-01 | 8628232 | NT | Bacteriophage Iike, complete genome |
| 9692 | 22741 | | 0.6 | 1.8E-01 | AA493761.1 | EST_HUMAN | h02a05.s1 NCL_CGAP_Thy1 Homo sapiens cDNA clone IMAGE:943088 similar to contains L1.13 L1 |
| 9774 | 22814 | 36392 | 0.95 | 1.8E-01 | P15272 | SWISSPROT | repetitive element; |
| 9774 | 22814 | 36393 | 0.95 | 1.8E-01 | P15272 | SWISSPROT | AMP NUCLEOSIDASE |
| 9814 | 22854 | 36432 | 1.02 | 1.8E-01 | M28019.1 | NT | AMP NUCLEOSIDASE |
| 9814 | 22854 | 36433 | 1.02 | 1.8E-01 | M28019.1 | NT | S commune arabinide-5'-phosphate decarboxylase (URA1) gene, complete cds |
| 9881 | 23020 | 36613 | 0.81 | 1.8E-01 | P08123 | SWISSPROT | S commune arabinide-5'-phosphate decarboxylase (URA1) gene, complete cds |
| 9888 | 23025 | 36617 | 0.71 | 1.8E-01 | U67548.1 | NT | COLLAGEN ALPHA 2(I) CHAIN PRECURSOR |
| 10337 | 23372 | | | | | | Methanococcus jannaschii section 80 of 150 of the complete genome |
| 10337 | 23372 | | | | | | Aequiplus cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial gene for mitochondrial product |
| 10578 | 23613 | 37218 | 0.87 | 1.8E-01 | AF200252.1 | NT | |
| 10785 | 23818 | 37441 | 1.46 | 1.8E-01 | X63440.1 | NT | M. musculus mRNA for P19-protein tyrosine phosphatase |
| 10873 | 23958 | 37588 | 2.02 | 1.8E-01 | AB011171.1 | NT | Homo sapiens mRNA for KIAA0589 protein, partial cds |
| 10873 | 23958 | 37588 | 2.02 | 1.8E-01 | X77336.1 | NT | A. thaliana mRNA for ribonucleotide reductase R2 |
| 10917 | 24000 | 37633 | 5 | 1.8E-01 | U38906.1 | NT | |
| 10974 | 20281 | 33722 | 3.05 | 1.8E-01 | AB018561.1 | NT | Bacteriophage r1 integrase, repressor protein (ro), dUTPase, hollin and lysin genes, complete cds |
| 10974 | 20281 | 33723 | 3.06 | 1.8E-01 | AB018561.1 | NT | Citrus limonius mRNA for wus, complete cds |
| 10975 | 24054 | 37688 | 4.41 | 1.8E-01 | AF019107.1 | NT | Citrus limonius mRNA for wus, complete cds |
| 11270 | 24338 | 37976 | 2.06 | 1.8E-01 | M59267.1 | NT | Drosophila discoidium unknown (DG1041) gene, complete cds |
| 11551 | 24808 | 38284 | 1.41 | 1.8E-01 | AW275728.1 | EST_HUMAN | Human carcinoembryonic antigen (CEA) gene, exon 4 |
| | | | | | | | xp40n10.x1 NCL_CGAP_HN11 Homo sapiens cDNA clone IMAGE:2742883 3' |

Page 101 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 11750 | 23936 | 37663 | 8.94 | 1.8E-01 | X57033.1 | NT | B. laurus mRNA for potassium channel |
| 12061 | 25042 | 38751 | 3.48 | 1.8E-01 | 8394421 | NT | Rattus norvegicus Thromboxane receptor (Tbx2r), mRNA |
| 12124 | 25104 | 38808 | 1.77 | 1.8E-01 | AA085094.1 | EST_HUMAN | op2798.seq.F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA 5' |
| 12239 | 25183 | | 1.79 | 1.8E-01 | 10086561 | NT | Bovine ephemeral fever virus, complete genome |
| 12306 | 25224 | 32103 | 1.28 | 1.8E-01 | BF348623.1 | EST_HUMAN | 802018928F1 NCL CGAP_Bm67 Homo sapiens cDNA clone IMAGE:4156318 5' |
| 12719 | 14473 | 27540 | 1.18 | 1.8E-01 | AL117189.1 | NT | Yersinia pestis plasmid pCD1 |
| 12811 | 25541 | | 3.28 | 1.8E-01 | Q98682 | SWISSPROT | DNA TERMINAL PROTEIN (BELLETT PROTEIN) (PTP PROTEIN) |
| 12942 | 25620 | | 20.8 | 1.8E-01 | R24494.1 | EST_HUMAN | YH48H10.1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:133027 5' |
| 12988 | 25643 | | 4.98 | 1.8E-01 | Y11114.1 | NT | E. dispar mRNA for hexokinase (hxt1) |
| 13035 | 26134 | 31548 | 1.7 | 1.8E-01 | 9506952 | NT | Rattus norvegicus procollagen C-proteinase enhancer protein (Pcolce), mRNA |
| 591 | 13792 | 26801 | 6.4 | 1.7E-01 | BE385164.1 | EST_HUMAN | 801274804F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3616788 5' |
| 828 | 14009 | 27063 | 3.16 | 1.7E-01 | X53330.1 | NT | P. dumerilii histone gene cluster for core histones H2A, H2B, H3 and H4 |
| 983 | 14156 | | 1.78 | 1.7E-01 | P35610 | SWISSPROT | NEUROFILAMENT TRIPLET L PROTEIN (NEUROFILAMENT LIGHT POLYPEPTIDE) (NFL) |
| 1083 | 14249 | 27305 | 0.88 | 1.7E-01 | AF081810.1 | NT | Lymantria dispar nucleopolyhedrovirus, complete genome |
| 1083 | 14249 | 27308 | 0.89 | 1.7E-01 | AF081810.1 | NT | Lymantria dispar nucleopolyhedrovirus, complete genome |
| 1880 | 15008 | 28113 | 2.44 | 1.7E-01 | AL161573.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 69 |
| 2038 | 15179 | | 3.23 | 1.7E-01 | AF255051.1 | NT | Homo sapiens BNIP3H (BNIP3L) gene, complete cds; nuclear gene for mitochondrial product |
| 2822 | 16100 | 28112 | 2.13 | 1.7E-01 | AF000716.1 | NT | Vibrio cholerae hypoxanthine phosphoribosyltransferase (hpt) gene, partial cds, hemagglutinin/protease regulatory protein (hapR) gene, complete cds, and YRAL VIBCO gene, partial cds |
| 2822 | 16100 | 28113 | 2.13 | 1.7E-01 | AF000716.1 | NT | Vibrio cholerae hypoxanthine phosphoribosyltransferase (hpt) gene, partial cds, hemagglutinin/protease regulatory protein (hapR) gene, complete cds, and YRAL VIBCO gene, partial cds |
| 2893 | 16169 | 28186 | 1.47 | 1.7E-01 | AA336909.1 | EST_HUMAN | EST141651 Endometrial tumor Homo sapiens cDNA 5' end |
| 3061 | 16237 | 28257 | 1.09 | 1.7E-01 | AJ238735.1 | NT | Naja naja atra cbx-1 gene, exons 1-3 |
| 3061 | 16237 | 29258 | 1.09 | 1.7E-01 | AJ238738.1 | NT | Naja naja atra cbx-1 gene, exons 1-3 |
| 3174 | 16349 | 29355 | 1.65 | 1.7E-01 | AF081514.1 | NT | Taxus canadensis geranylgeranyl diphosphate synthase mRNA, complete cds |
| 3451 | 16618 | 28637 | 0.81 | 1.7E-01 | N55763.1 | EST_HUMAN | J2346F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone J2346 5' |
| 3534 | 16699 | 29710 | 1.52 | 1.7E-01 | AJ269505.1 | NT | Anabaena sp. ORF4 (partial), ORF3, ORF2, ORF1, adpA gene, adpC gene, adpD gene, adpE gene and adpF gene |
| 4049 | 17205 | 30215 | 6.06 | 1.7E-01 | AJ235377.1 | NT | Homo sapiens derivative 11 breakpoint fragment: partial intron 10 of the ALL-1/MLL/HRX gene fused to intron 5 of the AF-4/FEL gene |
| 4881 | 17816 | | 2.49 | 1.7E-01 | X52936.1 | NT | Schistosoma gregaria alpha repetitive DNA |
| 4884 | 18014 | 30898 | 0.59 | 1.7E-01 | AF217490.1 | NT | Homo sapiens fragile 16D oxidoreductase (FOR) gene, exons 8, 9, and partial cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 4981 | 18090 | 31088 | 1.31 | 1.7E-01 | A1247635.1 | EST_HUMAN | qf57a08.x1 Soares fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1848808 3' similar to contains ORF.b1 ORF repetitive element; |
| 5231 | 18353 | | 1.07 | 1.7E-01 | AF072725.1 | NT | Zea mays starch branching enzyme 1b (ae) gene, complete cds |
| 6272 | 18391 | 31359 | 0.72 | 1.7E-01 | BF030010.1 | EST_HUMAN | 601537256F1 NIH_MGC 98 Homo sapiens cDNA clone IMAGE:3827187 6' |
| 6312 | 18428 | 31389 | 0.81 | 1.7E-01 | D37051.1 | NT | Rattus norvegicus mRNA for MIBP1 (c-myc intron binding protein 1), complete cds |
| 5524 | 18721 | 31737 | 1.88 | 1.7E-01 | A4470686.1 | EST_HUMAN | nef3a02.s1 NCJ CGAP_Co3 Homo sapiens cDNA clone IMAGE:881068 3' similar to gb:M17888 80S |
| 5524 | 18721 | 31738 | 1.88 | 1.7E-01 | A4470686.1 | EST_HUMAN | ACIDIC RIBOSOMAL PROTEIN P1 (HUMAN); |
| 5710 | 18803 | 32108 | 0.82 | 1.7E-01 | U43598.1 | NT | ACIDIC RIBOSOMAL PROTEIN P1 (HUMAN); |
| 6469 | 19928 | 32888 | 12.84 | 1.7E-01 | H72118.1 | EST_HUMAN | Brugia pahangi microfilarial sheath protein SHP3 (shp3) gene, complete cds |
| 6517 | 19882 | 33052 | 0.72 | 1.7E-01 | A1370976.1 | EST_HUMAN | ys02g08.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:213658 3' |
| 6517 | 19882 | 33053 | 0.72 | 1.7E-01 | A1370976.1 | EST_HUMAN | ta29c11.x1 Soares fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:2045492 3' |
| 6992 | 18511 | 31503 | 0.75 | 1.7E-01 | BE300286.1 | EST_HUMAN | ta29c11.x1 Soares fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:2045492 3' |
| 7018 | 20155 | | 1.94 | 1.7E-01 | AF026562.3 | NT | 600944087T1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2860248 3' |
| 7140 | 20275 | | 0.59 | 1.7E-01 | Z02810.1 | NT | Mesocricetus auratus oviductin precursor (OVI) gene, complete cds |
| 7369 | 20448 | 33911 | 1.38 | 1.7E-01 | AP000422.1 | NT | Homo sapiens HFE gene |
| 7448 | 20523 | 33998 | 8.61 | 1.7E-01 | BE734179.1 | EST_HUMAN | Escherichia coli O157:H7 genomic DNA, Sakai-VT2 prophage inserted region |
| 7649 | 20718 | 34195 | 1.21 | 1.7E-01 | P16724 | SWISSPROT | 601669022F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3843984 5' |
| 7668 | 25850 | 34208 | 0.84 | 1.7E-01 | Q01955 | SWISSPROT | PROBABLE PROCESSING AND TRANSPORT PROTEIN UL56 (HFLF0 PROTEIN) |
| 8046 | 21128 | 34648 | 1.28 | 1.7E-01 | AF000573.1 | NT | COLLAGEN ALPHA 3(V) CHAIN PRECURSOR |
| 8130 | 21232 | 34752 | 0.75 | 1.7E-01 | AF150669.1 | NT | Homo sapiens homogenitase 1,2-dioxygenase gene, complete cds |
| 8472 | 21553 | 35083 | 7.35 | 1.7E-01 | 7706426 | NT | Pseudomonas putida long-chain-fatty-acid-CoA ligase (fcd) gene, complete cds |
| 8472 | 21553 | 35084 | 7.35 | 1.7E-01 | 7706426 | NT | Homo sapiens cleavage and polyadenylation specificity factor 3, 73kD subunit (CPSF3), mRNA |
| 8895 | 21974 | 35511 | 0.5 | 1.7E-01 | AW882873.1 | EST_HUMAN | Homo sapiens cleavage and polyadenylation specificity factor 3, 73kD subunit (CPSF3), mRNA |
| 8925 | 22004 | 35643 | 1.83 | 1.7E-01 | D00384.1 | NT | RC2-BN0032-120200-011-e10 EN0032 Homo sapiens cDNA |
| 9045 | 22124 | 35668 | 0.94 | 1.7E-01 | AF217413.1 | NT | Rat (SHR strain) SX1 gene |
| 9045 | 22124 | 35667 | 0.94 | 1.7E-01 | AF217413.1 | NT | Homo sapiens neuroigin 3 isoform gene, complete cds, alternatively spliced |
| 9108 | 22276 | 35814 | 0.51 | 1.7E-01 | R77002.1 | EST_HUMAN | Homo sapiens neuroigin 3 isoform gene, complete cds, alternatively spliced |
| 9369 | 22444 | 36005 | 0.83 | 1.7E-01 | BE253142.1 | EST_HUMAN | y66g02.r1 Soares placenta NB21HP Homo sapiens cDNA clone IMAGE:144242 5' |
| 9369 | 22444 | 36006 | 0.83 | 1.7E-01 | BE253142.1 | EST_HUMAN | 601116872F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:3357184 5' |
| 9789 | 22828 | 36407 | 9.03 | 1.7E-01 | AP001508.1 | NT | 601116872F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:3357184 5' |
| 9899 | 22939 | 36524 | 0.54 | 1.7E-01 | AW977455.1 | EST_HUMAN | Bacillus halodurans genomic DNA, section 2/14 |
| 9899 | 22939 | 36525 | 0.54 | 1.7E-01 | AW977455.1 | EST_HUMAN | EST389564 IMAGE resequences, MAGO Homo sapiens cDNA |
| 9899 | 22939 | 36526 | 0.54 | 1.7E-01 | AW977455.1 | EST_HUMAN | EST389564 IMAGE resequences, MAGO Homo sapiens cDNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8918 | 22856 | 36543 | 2.08 | 1.7E-01 | U16288.1 | NT | Human class IV alcohol dehydrogenase (ADH7) gene, exon 3 |
| 8982 | 23031 | 36621 | 0.47 | 1.7E-01 | Z34508.1 | NT | Human immunodeficiency virus type 1 (B7.05) env gene (partial) |
| 8992 | 23031 | 36622 | 0.47 | 1.7E-01 | Z34508.1 | NT | Human immunodeficiency virus type 1 (B7.05) env gene (partial) |
| 10013 | 23051 | 36645 | 0.93 | 1.7E-01 | AJ251749.1 | NT | Drosophila melanogaster mRNA for serine protease inhibitor (serpin-9), (sp8 gene) |
| 10438 | 23473 | | 2.77 | 1.7E-01 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 10605 | 23639 | 37247 | 1.58 | 1.7E-01 | 11427203 | NT | Homo sapiens solute carrier family 7 (cationic amino acid transporter, y ⁺ system), member 2 (SLC7A2), mRNA |
| 10607 | 23641 | 37249 | 1.88 | 1.7E-01 | AA627972.1 | EST_HUMAN | nc60e07.s1 NCL CGAP_C08 Homo sapiens cDNA clone IMAGE:1148282 3' similar to gb:L26081 |
| 10819 | 24002 | 37636 | 9.54 | 1.7E-01 | BE390835.1 | EST_HUMAN | TRANSFORMING PROTEIN RHOC (HUMAN); |
| 11045 | 24122 | 37768 | 2.12 | 1.7E-01 | AA814617.1 | EST_HUMAN | 601286347F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3813268 5' |
| 11373 | 24434 | 38090 | 6.81 | 1.7E-01 | 7106300 | NT | d43a03.s1 NCL CGAP_CNS1 Homo sapiens cDNA clone IMAGE:1426824 3' |
| 11373 | 24434 | 38091 | 6.81 | 1.7E-01 | 7106300 | NT | Mus musculus adenomatosis polyposis coli binding protein Ebt1 (Ebt1), mRNA |
| 11657 | 24736 | 38427 | 1.71 | 1.7E-01 | AA883375.1 | EST_HUMAN | Mus musculus adenomatosis polyposis coli binding protein Ebt1 (Ebt1), mRNA |
| 12011 | 24998 | | 1.5 | 1.7E-01 | P15272 | SWISSPROT | ad4509.s1 Soares NFL_T_QBC_S1 Homo sapiens cDNA clone IMAGE:1460287 3' |
| 12042 | 25023 | 38727 | 1.87 | 1.7E-01 | P65889 | SWISSPROT | AMP NUCLEOSIDASE |
| 12042 | 25023 | 38728 | 1.87 | 1.7E-01 | P65889 | SWISSPROT | IGG RECEPTOR FORN LARGE SUBUNIT P51 PRECURSOR (FCRN) (NEONATAL FC RECEPTOR) |
| 12142 | 25117 | 38825 | 2 | 1.7E-01 | 11418157 | NT | (IGG FC FRAGMENT RECEPTOR TRANSPORTER, ALPHA CHAIN) |
| 12275 | 26087 | | 1.45 | 1.7E-01 | AL183278.2 | NT | (IGG FC FRAGMENT RECEPTOR TRANSPORTER, ALPHA CHAIN) |
| 12567 | 25920 | | 1.18 | 1.7E-01 | AI824404.1 | EST_HUMAN | Homo sapiens calpain channel, voltage-dependent, alpha 11 subunit (CACNA11), mRNA |
| 12807 | 25600 | 31972 | 7.24 | 1.7E-01 | U01317.1 | NT | Homo sapiens chromosome 21 segment HS21C079 |
| 128 | 13366 | 26388 | 1.7 | 1.6E-01 | AF217532.1 | NT | ACID RECEPTOR ALPHA-1 (HUMAN); |
| 687 | 15985 | 26913 | 1.16 | 1.6E-01 | R31497.1 | EST_HUMAN | Human beta globin region on chromosome 11 |
| 1651 | 14703 | 27783 | 4.25 | 1.6E-01 | AF298117.1 | NT | Homo sapiens mevalonate kinase gene, exon 6 and 7 |
| 1810 | 15053 | | 1.27 | 1.6E-01 | AJ235272.1 | NT | Y07512.L1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:135599 5' |
| 1877 | 15120 | 28221 | 2.14 | 1.6E-01 | P22063 | SWISSPROT | Homo sapiens homeobox protein OTX2 gene, complete cds |
| 2041 | 15182 | | 1.43 | 1.6E-01 | U10334.1 | NT | Rickettsia prowazekii strain Madrid E. complete genome; segment 3/4 |
| 2457 | 16063 | 28712 | 1.09 | 1.6E-01 | X84232.1 | NT | AXONIN-1 PRECURSOR (AXONAL GLYCOPROTEIN TAG-1) |
| 2562 | 15987 | 28813 | 2.73 | 1.6E-01 | AB037729.1 | NT | Grasshopper giga RNA polymerase II largest subunit mRNA, partial cds |
| 2867 | 18134 | 28149 | 14.1 | 1.6E-01 | AF185589.1 | NT | H. sapiens mRNA for novel T-cell activation protein |
| 2957 | 18134 | 28150 | 14.1 | 1.6E-01 | AF185589.1 | NT | Homo sapiens mRNA for KIAA1308 protein, partial cds |
| | | | | | | | Homo sapiens cytochrome P450 3A4 (CYP3A4) gene, promoter region |
| | | | | | | | Homo sapiens cytochrome P450 3A4 (CYP3A4) gene, promoter region |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 3723 | 16884 | 28889 | 1.23 | 1.6E-01 | AJ003165.1 | NT | Populus trichocarpa cv. Trichobel ABI3 gene |
| 3723 | 16884 | 28890 | 1.23 | 1.6E-01 | AJ003165.1 | NT | Populus trichocarpa cv. Trichobel ABI3 gene |
| 3872 | 17031 | 30030 | 0.82 | 1.6E-01 | AE000982.1 | NT | Archaeoglobus fulgidus cocilion 145 of 172 of the complete genome |
| 4107 | 17261 | | 2.8 | 1.6E-01 | AE004413.1 | NT | Vibrio cholerae chromosome II, section 70 of 83 of the complete chromosome |
| 4144 | 17286 | 30288 | 1.21 | 1.6E-01 | AF084458.1 | NT | Griffithia fasciculata tryptophan (trp) gene, complete cds |
| 4448 | 17588 | 30569 | 10.91 | 1.6E-01 | AF179880.1 | NT | Homo sapiens apelin gene, complete cds |
| 4578 | 17715 | | 2.49 | 1.6E-01 | AW968601.1 | EST_HUMAN | EST380677 MAGE resequencing, MAGJ Homo sapiens cDNA |
| 4586 | 17723 | | 4.39 | 1.6E-01 | 6753319 | NT | Mus musculus chaperonin subunit 3 (gamma) (Cct3), mRNA |
| 6080 | 18188 | 31162 | 1.39 | 1.6E-01 | AA088343.1 | EST_HUMAN | z84h09.s1 Strabagene colon (#837204) Homo sapiens cDNA clone IMAGE:511381 3' similar to TR:E221855 |
| 5083 | 18211 | 31183 | 1.8 | 1.6E-01 | AJ006358.1 | NT | E221955 38,855 BP SEGMENT OF CHROMOSOME XIV ; |
| 5083 | 18211 | 31184 | 1.8 | 1.6E-01 | AJ006356.1 | NT | Lycopodium obscurum RsaI fragment 2, satellite region |
| 5345 | 18458 | | 0.93 | 1.6E-01 | AF045283.1 | NT | Lycopodium obscurum RsaI fragment 2, satellite region |
| 5503 | 18702 | 31719 | 0.81 | 1.6E-01 | L40608.1 | NT | Gallus gallus smooth muscle non-muscle myosin light chain kinase gene, exon 29 |
| 5639 | 18833 | 31909 | 2.9 | 1.6E-01 | AW197496.1 | EST_HUMAN | Plasmodium falciparum (strain Dd2) variant-specific surface protein (var-1) gene, complete cds |
| 5639 | 18833 | 31910 | 2.9 | 1.6E-01 | AW197496.1 | EST_HUMAN | HYPOTHETICAL 127.6 KD PROTEIN ; |
| 5651 | 18845 | 32126 | 1.99 | 1.6E-01 | AF034718.1 | NT | HYPOTHETICAL 127.6 KD PROTEIN ; |
| 6152 | 19328 | 32674 | 0.73 | 1.6E-01 | BE926903.1 | EST_HUMAN | Rattus norvegicus CCAA7enhancer binding protein epsilon (cebpe) gene, complete cds |
| 6358 | 19720 | 33096 | 2.06 | 1.6E-01 | AL101588.2 | NT | RC3-BN0034-310800-113-101 BN0034 Homo sapiens cDNA |
| 6358 | 19720 | 33097 | 2.06 | 1.6E-01 | AL161588.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 84 |
| 6939 | 20262 | 33688 | 0.79 | 1.6E-01 | AB046788.1 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 84 |
| 6985 | 20213 | | 0.66 | 1.6E-01 | BF68630.1 | EST_HUMAN | Homo sapiens mRNA for KIAA1566 protein, partial cds |
| 7103 | 18530 | 31485 | 4.15 | 1.6E-01 | AW281275.1 | EST_HUMAN | 602139855F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4301004 5' |
| 7481 | 20528 | 34001 | 0.71 | 1.6E-01 | Z48632.1 | NT | UHL-B12-apt-b-08-0-UI.s1 NCL_CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2724418 3' |
| 7955 | 21005 | 34518 | 1.63 | 1.6E-01 | AW248359.1 | EST_HUMAN | S.cerevisiae chromosome X reading frame ORF YJR132w |
| 7982 | 21031 | 34544 | 0.84 | 1.6E-01 | 6753237 | EST_HUMAN | 2822248, SpRime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2822248 5' |
| 7986 | 21036 | | 1.03 | 1.6E-01 | AU136525.1 | EST_HUMAN | Mus musculus Ca ²⁺ -dependent activator protein for secretion (Cadps), mRNA |
| 8053 | 21136 | 34657 | 1.82 | 1.6E-01 | L48348.1 | NT | AU136525 PLACE1 Homo sapiens cDNA clone PLACE1004466 5' |
| 8215 | 21297 | | 0.53 | 1.6E-01 | BE244087.1 | EST_HUMAN | Gorilla gorilla androgen receptor gene, partial exon |
| 8310 | 21382 | 34818 | 0.77 | 1.6E-01 | U38243.1 | NT | TCBAP1E0607 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HQSC project=TCBA Homo sapiens cDNA clone TCBAP0607 |
| | | | | | | | Bacteroides vulgatus beta-lactamase (ctxA) gene, complete cds and mobilization protein (mobA) gene, complete cds |

Table 4.

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 8833 | 21812 | 35450 | 1.08 | 1.6E-01 | Z99119.1 | NT | Bacillus subtilis complete genome (section 16 of 21); from 2897771 to 3213410 |
| 9026 | 22105 | 35646 | 0.77 | 1.6E-01 | R13673.1 | EST_HUMAN | Y68h08.r1 Scores Infant brain N1B Homo sapiens cDNA clone IMAGE:26873 5' |
| 9133 | 22212 | | 0.74 | 1.6E-01 | L36661.1 | NT | Homo sapiens guanylate cyclase activating protein (GCAP) gene exons 1-4, complete cds |
| 9171 | 22249 | 35792 | 1.85 | 1.6E-01 | Z49501.1 | NT | S. cerevisiae chromosome X reading frame ORF YJR001w |
| 9311 | 22387 | | 0.76 | 1.6E-01 | AF111167.2 | NT | Homo sapiens jun dimerization protein gene, partial cds; cfos gene, complete cds; and unknown gene |
| 9851 | 22891 | | 1.77 | 1.6E-01 | BF375171.1 | EST_HUMAN | RC3-ST0200-041189-014-h01 ST0200 Homo sapiens cDNA |
| 9864 | 22864 | 36475 | 1.99 | 1.6E-01 | Z49501.1 | NT | S. cerevisiae chromosome X reading frame ORF YJR001w |
| 8891 | 22931 | | 1.16 | 1.6E-01 | BE155664.1 | EST_HUMAN | PM2-HT0353-270100-004-111 HT0353 Homo sapiens cDNA |
| 10828 | 23859 | 37482 | 0.5 | 1.6E-01 | 11128018 | NT | Homo sapiens nuclear autoantigen (GS2NA), mRNA |
| 10863 | 23977 | 37609 | 2.34 | 1.6E-01 | AW850853.1 | EST_HUMAN | IL3-CT0220-111189-028-G01 CT0220 Homo sapiens cDNA |
| 11244 | 24313 | 37651 | 1.34 | 1.6E-01 | O14647 | SWISSPROT | CHROMODOMAIN-HELICASE-DNA-BINDING PROTEIN 2 (CHD-2) |
| 11244 | 24313 | 37652 | 1.34 | 1.6E-01 | O14647 | SWISSPROT | CHROMODOMAIN-HELICASE-DNA-BINDING PROTEIN 2 (CHD-2) |
| 11249 | 24318 | 37658 | 1.52 | 1.6E-01 | BE258648.1 | EST_HUMAN | 601145783F1 NIH_MGC 19 Homo sapiens cDNA clone IMAGE:3161183 5' |
| 11377 | 24438 | | 3.6 | 1.6E-01 | AF106064.1 | NT | Plasmodium falciparum calcium-dependent protein kinase-3 (cdpk3) gene, complete cds |
| 11697 | 24694 | 38386 | 7.53 | 1.6E-01 | | NT | Mus musculus adaptor-related protein complex AP-1, beta 1 subunit (Apt1b1), mRNA |
| 12277 | 25207 | 38363 | 3.89 | 1.6E-01 | AV718585.1 | EST_HUMAN | AV718585 GLC Homo sapiens cDNA clone GLCEMF07 5' |
| 12597 | 26402 | 32043 | 2 | 1.6E-01 | L14933.1 | NT | Rat convertase PC5 mRNA, 5' end |
| 12630 | 25423 | | 1.38 | 1.6E-01 | AW639711.1 | EST_HUMAN | RC1-LT0074-120200-014-h01_1 LT0074 Homo sapiens cDNA |
| 12793 | 25893 | | 11.84 | 1.6E-01 | AB045310.1 | NT | Guamitis salivus KS mRNA for ant-karene synthase, complete cds |
| 12833 | 25815 | | 2.71 | 1.6E-01 | AK024496.1 | NT | Homo sapiens mRNA for FLJ00104 protein, partial cds |
| 13029 | 25878 | | 5.04 | 1.6E-01 | AF293744.1 | NT | Fuchsia hybrid cultivar Qiu 04208 ribosomal protein S10 gene, partial cds; nuclear gene for mitochondrial product |
| 13054 | 25860 | 31984 | 1.69 | 1.6E-01 | 9506522 | NT | Rattus norvegicus chondroitin sulfate proteoglycan 6 (neuroglycan C) (Cspg6), mRNA |
| 13080 | 25894 | | 1.4 | 1.6E-01 | BE267894.1 | EST_HUMAN | 601125459F1 NIH_MGC 8 Homo sapiens cDNA clone IMAGE:3348038 5' |
| 13199 | 25782 | | 1.29 | 1.6E-01 | BF872698.1 | EST_HUMAN | 602152004F1 NIH_MGC 81 Homo sapiens cDNA clone IMAGE:4293145 5' |
| 258 | 13477 | 26508 | 1.7 | 1.6E-01 | BE710087.1 | EST_HUMAN | IL3-HT0619-040700-197-E05 HT0619 Homo sapiens cDNA |
| 259 | 13477 | 26509 | 1.7 | 1.6E-01 | BE710087.1 | EST_HUMAN | IL3-HT0619-040700-197-E05 HT0619 Homo sapiens cDNA |
| 600 | 15884 | | 2.5 | 1.5E-01 | AV711696.1 | EST_HUMAN | AV711696 DCA Homo sapiens cDNA clone DCAADH08 5' |
| 805 | 13985 | 27037 | 1.38 | 1.5E-01 | AL163284.2 | NT | Homo sapiens chromosome 21 segment H521C084 |
| 1116 | 14281 | 27337 | 1.44 | 1.5E-01 | AJ009735.1 | NT | Cyprinus carpio mRNA for EGGS22 myosin heavy chain, 3'UTR |
| 1121 | 14286 | 27341 | 2.7 | 1.5E-01 | AJ251885.1 | NT | Homo sapiens partial SL C22A2 gene for organic cation transporter (OCT2), exon 1 |
| 1137 | 14302 | | 1.85 | 1.5E-01 | L36125.1 | NT | Rattus norvegicus insulin-responsive glucose transporter (GLUT4) gene, 5' end |
| 1243 | 14402 | 27463 | 2.37 | 1.5E-01 | AW195516.1 | EST_HUMAN | xc39d11.x1 NCL_GCAP_Kid11 Homo sapiens cDNA clone IMAGE:2688085 3' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 1304 | 14460 | 27528 | 3.22 | 1.5E-01 | D28535.1 | NT | Human gene for dihydropyrimidine succinyltransferase, complete cds (exon 1-15) |
| 1304 | 14460 | 27527 | 3.22 | 1.5E-01 | D28533.1 | NT | Human gene for dihydropyrimidine succinyltransferase, complete cds (exon 1-15) |
| 1511 | 14664 | 27749 | 1.38 | 1.5E-01 | AF117340.1 | NT | Mus musculus MAP kinase kinase 1 (Mekk1) mRNA, complete cds |
| 1987 | 15100 | 28200 | 0.98 | 1.5E-01 | AW444451.1 | EST_HUMAN | UI-H-B13-akb-B-09-0-UJ.s1 NCL CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2733941 3' |
| 2980 | 16158 | | 0.9 | 1.5E-01 | AW572516.1 | EST_HUMAN | xw56a02.x2 NCL CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2831978 3' similar to gb:X55072_ma1 |
| 3100 | 16276 | 29280 | 0.81 | 1.5E-01 | M81441.1 | NT | THYROID HORMONE RECEPTOR ALPHA-1 (HUMAN); |
| 3118 | 16294 | 29308 | 0.62 | 1.5E-01 | O78687 | SWISSPROT | Bos taurus factor V variant 2 (factor V) mRNA, complete cds |
| 3433 | 16601 | 29620 | 5.78 | 1.5E-01 | AA035049.1 | EST_HUMAN | NADH-UBIQUINONE OXIDOREDUCTASE CHAIN 4 |
| 3434 | 16621 | 29641 | 0.73 | 1.5E-01 | Z23104.1 | NT | oc88405.a1 NCL CGAP_GC4 Homo sapiens cDNA clone IMAGE:1671337 3' similar to gb:M11433 |
| 3434 | 16621 | 29642 | 0.73 | 1.5E-01 | Z23104.1 | NT | RETINOL-BINDING PROTEIN I, CELLULAR (HUMAN); |
| 3851 | 17011 | 30011 | 2.35 | 1.5E-01 | U09564.1 | NT | L.stagnalis mRNA for G protein-coupled receptor |
| 3887 | 17028 | 30025 | 0.83 | 1.5E-01 | 7108358 | NT | L.ctagnalis mRNA for G protein-coupled receptor |
| 3881 | 17040 | 30037 | 0.77 | 1.5E-01 | M97892.1 | NT | Mus musculus ICR/Swiss glyceroldehyde 3-phosphate dehydrogenase (Gapd-S) gene, complete cds |
| 3970 | 17128 | 30131 | 2.45 | 1.5E-01 | AW665883.1 | EST_HUMAN | Homo sapiens pyruvate dehydrogenase kinase, isoenzyme 1 (PDK1), nuclear gene encoding mitochondrial protein, mRNA |
| 3987 | 17144 | 30149 | 0.68 | 1.5E-01 | AJ003165.1 | NT | XYNA; Thermosphaerobacterium; xyna; 4182 base-pairs |
| 3987 | 17144 | 30160 | 0.68 | 1.5E-01 | AJ003165.1 | NT | h10106.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2981411 3' |
| 4161 | 17312 | 30308 | 1.16 | 1.5E-01 | AW368659.1 | EST_HUMAN | Populus trichocarpa cv. Trichobol ABI3 gene |
| 4210 | 17359 | 30348 | 0.67 | 1.5E-01 | Z12828.1 | NT | Populus trichocarpa cv. Trichobol ABI3 gene |
| 4289 | 17442 | 30428 | 9.85 | 1.5E-01 | AL163284.2 | NT | RC2-HT0149-19T099-012-c09 H10149 Homo sapiens cDNA |
| 4847 | 17990 | 30969 | 1.54 | 1.5E-01 | BF687685.1 | EST_HUMAN | B.napus mitochondrion DNA for ORF158 |
| 4874 | 15891 | 29002 | 2.33 | 1.5E-01 | BF695381.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C084 |
| 5114 | 18242 | 31207 | 1.5 | 1.5E-01 | AL161580.2 | NT | 602067192F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4086223 6' |
| 5370 | 18573 | 31441 | 1.91 | 1.5E-01 | P07996 | SWISSPROT | 602083298F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4247637 5' |
| 5399 | 18601 | 31571 | 1.33 | 1.5E-01 | AF256682.1 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 60 |
| 5443 | 18843 | | 5.95 | 1.5E-01 | P15186 | SWISSPROT | THROMBOSPONDIN 1 PRECURSOR |
| 5655 | 18849 | 32131 | 4.8 | 1.5E-01 | AW850754.1 | EST_HUMAN | Calman crocodilus MHC class II beta chain (ncilbeta) gene, complete cds |
| 5697 | 18891 | 32182 | 0.68 | 1.5E-01 | U65016.1 | NT | SEX HORMONE-BINDING GLOBULIN PRECURSOR (SHBG) (SEX STEROID-BINDING PROTEIN) |
| 5697 | 18891 | 32183 | 0.68 | 1.5E-01 | U65016.1 | NT | (SBP) (TESTIS-SPECIFIC ANDROGEN-BINDING PROTEIN) (ABP) |
| 6029 | 19212 | 32532 | 0.82 | 1.5E-01 | 4506810 | NT | IL3-CT0219-160200-064-F10 CT0219 Homo sapiens cDNA |
| | | | | | | | Mus musculus transforming growth factor alpha (TGFA) mRNA, complete cds |
| | | | | | | | Mus musculus transforming growth factor alpha (TGFA) mRNA, complete cds |
| | | | | | | | Mus musculus transforming growth factor alpha (TGFA) mRNA, complete cds |
| | | | | | | | Homo sapiens sodium channel, voltage-gated, type VI, alpha polypeptide (SCN6A) mRNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 6126 | 19307 | 32647 | 1.71 | 1.5E-01 | 6753659 | NT | Mus musculus DNA methyltransferase 2 (Dnm2), mRNA |
| 6128 | 19307 | 32648 | 1.71 | 1.5E-01 | 6753659 | NT | Mus musculus DNA methyltransferase 2 (Dnm2), mRNA |
| 6169 | 19344 | 32690 | 2.19 | 1.5E-01 | AJ276505.1 | NT | Mus musculus genomic fragment, 279 Kb, chromosome 7 |
| 6324 | 19496 | 32862 | 3.49 | 1.5E-01 | BE727658.1 | EST_HUMAN | 601594322F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3833981 5' |
| 6376 | 19545 | | 1.98 | 1.5E-01 | 4508993 | NT | Homo sapiens RAD54 (S.cerevisiae)-like (RAD54L) mRNA |
| 6474 | 19641 | 33002 | 1.74 | 1.5E-01 | AF134807.1 | NT | Influenza B virus (B/Nanchang/480/84) NB protein gene, complete cds, and neuraminidase gene, partial cds |
| 6631 | 25828 | 33178 | 3.58 | 1.5E-01 | AE001038.1 | NT | Archaeoglobus fulgidus section 68 of 172 of the complete genome |
| 6681 | 19820 | 33207 | 4.73 | 1.5E-01 | 11417236 | NT | Homo sapiens chromosome 5 open reading frame 3 (C8ORF3), mRNA |
| 6672 | 19831 | 33220 | 1.51 | 1.5E-01 | P48508 | SWISSPROT | GLUTAMATE-CYSTEINE LIGASE REGULATORY SUBUNIT (GAMMA-GLUTAMYL-CYSTEINE SYNTHETASE) (GAMMA-ECS) (GCS LIGHT CHAIN) |
| 6719 | 19876 | 33267 | 2.35 | 1.5E-01 | Q28462 | SWISSPROT | AMELOGENIN |
| 6823 | 19976 | 33383 | 0.86 | 1.5E-01 | AA714760.1 | EST_HUMAN | hw30d10.s1 NCI_CGAP_GC80 Homo sapiens cDNA clone IMAGE:1241871 3' |
| 6862 | 20005 | 33414 | 2.24 | 1.5E-01 | P30143 | SWISSPROT | HYPOTHETICAL 51.7 KD PROTEIN IN THRC-TALB INTERGENIC REGION (ORF8) |
| 7118 | 18644 | 31500 | 6 | 1.5E-01 | AW970295.1 | EST_HUMAN | EST382376 IMAGE resequences, MAGK Homo sapiens cDNA |
| 7168 | 25840 | | 0.8 | 1.5E-01 | AA811545.1 | EST_HUMAN | ob73102.s1 NCI_CGAP_GC81 Homo sapiens cDNA clone IMAGE:1337019 3' similar to contains element LTR2 repetitive element |
| 7365 | 20444 | | 4.73 | 1.5E-01 | AF210842.1 | NT | Homo sapiens HARP (HARP) gene, exon 17 and complete cds |
| 7650 | 20622 | 34099 | 1.63 | 1.5E-01 | A1873157.1 | EST_HUMAN | wf52008.x1 NCI_CGAP_UT1 Homo sapiens cDNA clone IMAGE:2491310 3' |
| 7764 | 20823 | 34314 | 0.88 | 1.5E-01 | AF290073.1 | NT | Bos taurus Niemann-Pick type C1 disease protein (NPC1) mRNA, complete cds |
| 7764 | 20823 | 34315 | 0.88 | 1.5E-01 | AF290073.1 | NT | Bos taurus Niemann-Pick type C1 disease protein (NPC1) mRNA, complete cds |
| 7775 | 20832 | 34322 | 1.68 | 1.5E-01 | AW500611.1 | EST_HUMAN | UJHF-BND-akk-405-0-UJ11 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3077409 5' |
| 7775 | 20832 | 34323 | 1.68 | 1.5E-01 | AW500611.1 | EST_HUMAN | UJHF-BND-akk-405-0-UJ11 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3077409 5' |
| 7919 | 20970 | 34477 | 0.79 | 1.5E-01 | U46560.1 | NT | Saccharomyces cerevisiae weak multicopy suppressor of los1-1 (SOL3) gene, complete cds |
| 8248 | 21330 | 34846 | 0.99 | 1.5E-01 | P21303 | SWISSPROT | MEROZOITE RECEPTOR PK68 PRECURSOR (66 KD PROTECTIVE MINOR SURFACE ANTIGEN) |
| 8414 | 21495 | 35026 | 1.1 | 1.5E-01 | AA970317.1 | EST_HUMAN | cc85g12.s1 NCI_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1873030 3' similar to gb:M26082 |
| 8507 | 21588 | | 1.05 | 1.5E-01 | BE884799.1 | EST_HUMAN | INTERLEUKIN-2 RECEPTOR BETA CHAIN PRECURSOR (HUMAN) |
| 8594 | 21675 | | 14.14 | 1.5E-01 | C16800.1 | EST_HUMAN | 601510523F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3912004 5' |
| 8628 | 21708 | 35245 | 1.87 | 1.5E-01 | L27635.1 | NT | C16800 Clontech human aorta polyA+ mRNA (#8572) Homo sapiens cDNA clone GEN-529H09 5' |
| 8763 | 21872 | 35411 | 2.17 | 1.5E-01 | D84476.1 | NT | Pangasinodon gigas growth hormone (GH) mRNA, complete cds |
| 8814 | 21893 | | 0.79 | 1.5E-01 | P43448 | SWISSPROT | Homo sapiens mRNA for ASK1, complete cds |
| 9038 | 22117 | 35660 | 3.12 | 1.5E-01 | 4501972 | NT | WNT-10A PROTEIN PRECURSOR |
| | | | | | | | Homo sapiens adaptor-related protein complex 1, beta 1 subunit (ADTB1), mRNA |

Page 108 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Description |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 8305 | 22381 | 35932 | 2.59 | 1.5E-01 | N74226.1 | EST_HUMAN | z559d06.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:288868 3' similar to |
| 8394 | 22469 | 36033 | 1.34 | 1.5E-01 | BF558485.1 | EST_HUMAN | PIR:S44443 S44443 RAD23 protein homolog2 - human ; |
| 8401 | 22475 | | 2.52 | 1.5E-01 | AV754819.1 | EST_HUMAN | GVO000404 Human Peorias Differential Display Homo sapiens cDNA |
| 8606 | 22660 | | 0.84 | 1.5E-01 | AU130007.1 | EST_HUMAN | AV754819 TP Homo sapiens cDNA clone TPAAB12 5' |
| 8632 | 21055 | 34609 | 6.7 | 1.5E-01 | U00456.1 | NT | AU130007 NT2RP3 Homo sapiens cDNA clone NT2RP300080 5' |
| | | | | | | | Adpenser transmembrane vitellogenin mRNA, partial cds |
| 10022 | 23060 | 36656 | 0.71 | 1.5E-01 | M77144.1 | NT | Human type II 3-beta hydroxysteroid dehydrogenase/ 5-delta - 4-delta isomerase gene, complete cds |
| 10126 | 23163 | 36761 | 7.82 | 1.5E-01 | AF007670.1 | NT | Aplysia californica carboxypeptidase D mRNA, complete cds |
| 10126 | 23163 | 36762 | 7.82 | 1.5E-01 | AF007670.1 | NT | Aplysia californica carboxypeptidase D mRNA, complete cds |
| 10407 | 23442 | 37049 | 2.59 | 1.5E-01 | X98852.1 | NT | P. lentusculi mRNA for integrin beta subunit |
| 10485 | 23530 | | 0.51 | 1.5E-01 | AB027769.1 | NT | Mesocricetus auratus mRNA for collagen type XVII, complete cds |
| 10516 | 23551 | 37461 | 2.36 | 1.5E-01 | AB14048.1 | EST_HUMAN | wk33h12x1 NCI CGAP Pr22 Homo sapiens cDNA clone IMAGE:2419176 3' similar to gb:M27508 BETA |
| | | | | | | | GALACTOSIDASE-RELATED PROTEIN PRECURSOR (HUMAN); |
| 10516 | 23551 | 37462 | 2.36 | 1.5E-01 | AB14048.1 | EST_HUMAN | wk33h12x1 NCI CGAP Pr22 Homo sapiens cDNA clone IMAGE:2419176 3' similar to gb:M27508 BETA |
| 10598 | 23633 | 37242 | 1.22 | 1.5E-01 | U40932.1 | NT | GALACTOSIDASE-RELATED PROTEIN PRECURSOR (HUMAN); |
| 10781 | 23784 | 37413 | 1.69 | 1.5E-01 | AJ011984.1 | NT | Danio rerio transcription factor Pax9b (Pax9) mRNA, complete cds. |
| 10781 | 23784 | 37414 | 1.69 | 1.5E-01 | AJ011984.1 | NT | Glaviceps purpurea ps1 gene |
| 10935 | 24017 | 37649 | 1.67 | 1.5E-01 | BE088492.1 | EST_HUMAN | Glaviceps purpurea ps1 gene |
| 10936 | 24017 | 37650 | 1.67 | 1.5E-01 | BE088492.1 | EST_HUMAN | GM2-BT0688-210300-122-F11 BT0688 Homo sapiens cDNA |
| 11063 | 24139 | 37773 | 4.46 | 1.5E-01 | AL163280.2 | NT | GM2-BT0688-210300-122-F11 BT0688 Homo sapiens cDNA |
| 11063 | 24139 | 37774 | 4.46 | 1.5E-01 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 11331 | 24394 | 38042 | 1.38 | 1.5E-01 | AW841915.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C080 |
| | | | | | | | IL6-GN0024-030300-026-D04 GN0024 Homo sapiens cDNA |
| 11925 | 24911 | | 1.34 | 1.5E-01 | AI193704.1 | EST_HUMAN | q972601.x1 Soares fetal lung NbH-L18W Homo sapiens cDNA clone IMAGE:1744536 3' similar to |
| 12232 | 25953 | | 38.98 | 1.9E-01 | BF700592.1 | EST_HUMAN | gb:M17887 60S ACIDIC RIBOSOMAL PROTEIN P2 (HUMAN); |
| 12629 | 25422 | | 1.64 | 1.5E-01 | AF030358.2 | NT | 602128753F1 NIH_MGC 59 Homo sapiens cDNA clone IMAGE:4285549 5' |
| 12633 | 25426 | | 1.23 | 1.5E-01 | AJ298332.1 | NT | Rattus norvegicus chemokine CX3G mRNA, complete cds |
| 12696 | 25978 | | 6.64 | 1.5E-01 | R63077.1 | EST_HUMAN | Mus musculus mRNA for death inducer-obliterin-1 (Dio-1) |
| 12749 | 25498 | | 1.52 | 1.5E-01 | AP001514.1 | NT | yp87c04.1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:194430 5' |
| 12778 | 25520 | 32002 | 1.41 | 1.5E-01 | 9695419 | NT | Bacillus halodurans genomic DNA, section 8/14 |
| 12807 | 26000 | | 2.59 | 1.5E-01 | AV741272.1 | EST_HUMAN | Lymphocystis disease virus 1, complete genome |
| 12932 | 25896 | 31857 | 7.68 | 1.5E-01 | AL138074.2 | NT | AV741272 CB Homo sapiens cDNA clone CBADAGD04 5' |
| | | | | | | | Campylobacter jejuni NCTC11168 complete genome, segment 1/8 |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 13183 | 25769 | 31832 | 6.61 | 1.5E-01 | AJ276242.1 | NT | Sus scrofa mRNA for sodium bicarbonate symporter |
| 13227 | 26138 | | 2.26 | 1.5E-01 | 8631294 | NT | Melanoplus euglinipus entomopoxvirus, complete genome |
| 310 | 13526 | | 1.23 | 1.4E-01 | AF009663.1 | NT | Homo sapiens T cell receptor beta locus, TCRBV85P to TCRBV21S2A2 region |
| 833 | 14108 | | 3.24 | 1.4E-01 | D78638.1 | NT | Xenopus laevis mRNA for DNA (cytosine-5)-methyltransferase, complete cds |
| 1288 | 14444 | | 2.99 | 1.4E-01 | T91864.1 | EST_HUMAN | Y54401.s1 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:112032 3' |
| 1787 | 14936 | | 1.48 | 1.4E-01 | 6879980 | NT | Mus musculus growth differentiation factor 5 (Gdf5), mRNA |
| 1790 | 14939 | 28032 | 1.84 | 1.4E-01 | AE001710.1 | NT | Thermoboga maritima section 22 of 136 of the complete genome |
| 1854 | 15087 | | 1.27 | 1.4E-01 | AW138741.1 | EST_HUMAN | UI-H-B11-acf-a-09-0-U1.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2714009 3' |
| 2042 | 15183 | | 14.84 | 1.4E-01 | AA720815.1 | EST_HUMAN | U72007.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1283821 3' |
| 2544 | 15669 | 28783 | 1.02 | 1.4E-01 | P30706 | SWISSPROT | GLYCEROL-3-PHOSPHATE ACYLTRANSFERASE PRECURSOR (GPAT) |
| 2853 | 15967 | 29077 | 3.34 | 1.4E-01 | A1933466.1 | EST_HUMAN | Wm74d01.x1 NCI_CGAP_U12 Homo sapiens cDNA clone IMAGE:2441685 3' |
| 4289 | 17434 | 30421 | 9.45 | 1.4E-01 | A1695094.1 | EST_HUMAN | b66c02.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2273570 3' |
| 4289 | 17434 | 30422 | 9.45 | 1.4E-01 | A1695094.1 | EST_HUMAN | b66c02.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2273570 3' |
| 4352 | 17465 | 30475 | 4.28 | 1.4E-01 | AE001710.1 | NT | Thermoboga maritima section 22 of 136 of the complete genome |
| 4531 | 17669 | | 0.7 | 1.4E-01 | AA776287.1 | EST_HUMAN | Z50b01.s1 Soares fetal liver spleen INFLS_S1 Homo sapiens cDNA clone IMAGE:453673 3' similar to gb:X01057_ma1 INTERLEUKIN-2 RECEPTOR ALPHA CHAIN PRECURSOR (HUMAN); contains Alu repetitive element |
| 4798 | 17933 | 30920 | 0.79 | 1.4E-01 | 5453861 | NT | Homo sapiens phosphodiesterase 4A, cAMP-specific (dunce (Drosophila)-homolog phosphodiesterase E2) (PDE4A), mRNA |
| 5322 | 18438 | 31408 | 0.62 | 1.4E-01 | AJ005180.1 | NT | Lycopodium obscurum genomic RAPD band 26 |
| 6421 | 18622 | 31698 | 5.21 | 1.4E-01 | T80677.1 | EST_HUMAN | Y615c11.s1 Stragiana lung (#837210) Homo sapiens cDNA clone IMAGE:117812 3' |
| 6444 | 18644 | 31821 | 4.33 | 1.4E-01 | AB004556.1 | NT | Candida tropicalis DNA for mitochondrial NADP-linked isocitrate dehydrogenase, complete cds |
| 6444 | 18644 | 31822 | 4.33 | 1.4E-01 | AB004556.1 | NT | Candida tropicalis DNA for mitochondrial NADP-linked isocitrate dehydrogenase, complete cds |
| 6427 | 18686 | 32981 | 3.17 | 1.4E-01 | BE326891.1 | EST_HUMAN | h67c02.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3133538 3' |
| 6611 | 19771 | 33161 | 4.45 | 1.4E-01 | AU117147.1 | EST_HUMAN | AU117147 HEMBA1 Homo sapiens cDNA clone HEMBA1000769 5' |
| 6611 | 19771 | 33162 | 4.46 | 1.4E-01 | AU117147.1 | EST_HUMAN | AU117147 HEMBA1 Homo sapiens cDNA clone HEMBA1000769 5' |
| 6701 | 19858 | 33249 | 3.7 | 1.4E-01 | AW082798.1 | EST_HUMAN | x671d12.x1 Soares NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2581751 3' |
| 6716 | 19873 | | 1.51 | 1.4E-01 | BE266536.1 | EST_HUMAN | 604193523F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3537581 5' |
| 6789 | 19895 | 33286 | 2.48 | 1.4E-01 | BF378533.1 | EST_HUMAN | QV1-UM0038-080300-103-409 UN0036 Homo sapiens cDNA |
| 7276 | 20369 | | 0.71 | 1.4E-01 | AL118568.1 | EST_HUMAN | DKFZp761A0810_r1 781 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761A0310 5' |
| 7545 | 20617 | | 1.78 | 1.4E-01 | AW016373.1 | EST_HUMAN | UI-H-B10-east-c-08-0-U1.s1 NCI_CGAP_Sub1 Homo sapiens cDNA clone IMAGE:2710289 3' |
| 7618 | 20888 | | 0.73 | 1.4E-01 | A1762827.1 | EST_HUMAN | w04412.x1 NCI_CGAP_CL1 Homo sapiens cDNA clone IMAGE:2388295 3' similar to SW:ICE4_HUMAN P49882 CASPASE-4 PRECURSOR; |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 7621 | 20861 | 34167 | 0.63 | 1.4E-01 | T63770.1 | EST_HUMAN | ya0011.r2 Strategene placenta (#937225) Homo sapiens cDNA clone IMAGE:88973 5' similar to contains |
| 7769 | 20856 | 34345 | 0.95 | 1.4E-01 | U85645.1 | NT | Alu repetitive element |
| 7892 | 20882 | 34480 | 1.02 | 1.4E-01 | A1305192.1 | EST_HUMAN | Oryzias latipes cDNA clone IMAGE:1879583 3' |
| 8162 | 21244 | | 0.64 | 1.4E-01 | BF310288.1 | EST_HUMAN | q10012.x1 Soares_NHMPU_S1 Homo sapiens cDNA clone IMAGE:1879583 3' |
| 8670 | 21760 | | 1.32 | 1.4E-01 | AV659047.1 | EST_HUMAN | 601804760F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4124189 5' |
| 8984 | 22063 | | 0.6 | 1.4E-01 | AI436083.1 | EST_HUMAN | AV659047 GLC Homo sapiens cDNA clone GLCFSH06 3' |
| 9114 | 22193 | 35738 | 4.94 | 1.4E-01 | AA307073.1 | EST_HUMAN | th92b12.x1 Soares_NSF_F9_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2126111 3' similar to |
| 9184 | 22272 | 35810 | 0.76 | 1.4E-01 | AW023636.1 | EST_HUMAN | TR:002710 C02710 GAG POLYPROTEIN; |
| 9322 | 22398 | 35951 | 1.07 | 1.4E-01 | R62746.1 | EST_HUMAN | EST:178102 Cdon carcinoma (HCC) cell line Homo sapiens cDNA 5' end |
| 9322 | 22398 | 35952 | 1.07 | 1.4E-01 | R62746.1 | EST_HUMAN | df68b03.y1 Morton Fetal Cochlea Homo sapiens cDNA clone IMAGE:2487485 5' |
| 9388 | 22463 | 36027 | 8.62 | 1.4E-01 | BF310959.1 | EST_HUMAN | y1ch05.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:136873 5' |
| 9475 | 22532 | 36098 | 1.72 | 1.4E-01 | W93411.1 | EST_HUMAN | y1ch05.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:136873 5' |
| 9547 | 22612 | 36180 | 0.54 | 1.4E-01 | X73293.1 | NT | g01895405F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4124824 5' |
| 9547 | 22612 | 36181 | 0.54 | 1.4E-01 | X73293.1 | NT | z054904.r1 Soares_Fetal_Heart_NbHH18W Homo sapiens cDNA clone IMAGE:357102 5' similar to contains |
| 9588 | 22823 | 36194 | 1.65 | 1.4E-01 | Y10198.1 | NT | element KER repetitive element; |
| 9588 | 22823 | 36195 | 1.65 | 1.4E-01 | Y10198.1 | NT | M.vannelli genes rpoH, rpoB and rpoA |
| 9849 | 21092 | 34307 | 1.81 | 1.4E-01 | AF121381.1 | NT | M.vannelli genes rpoH, rpoB and rpoA |
| 10009 | 23047 | 36841 | 0.54 | 1.4E-01 | X66092.1 | NT | Homo sapiens PHEX gene |
| 10192 | 23229 | 36821 | 0.88 | 1.4E-01 | AF023813.1 | NT | Homo sapiens PHEX gene |
| 10293 | 23328 | 36831 | 0.61 | 1.4E-01 | AW021908.1 | EST_HUMAN | Drosophila melanogaster signal transducing adaptor protein (STAM), serine threonine kinase (LAL), and |
| 10293 | 23328 | 36832 | 0.61 | 1.4E-01 | AW021908.1 | EST_HUMAN | zinc finger protein (DNZ1) genes, complete cds |
| 10463 | 23498 | 37109 | 0.76 | 1.4E-01 | BF375285.1 | EST_HUMAN | C.paringens ORF for putative membrane transport protein |
| 10463 | 23498 | 37110 | 0.76 | 1.4E-01 | BF375285.1 | EST_HUMAN | Macromitrium levetum small ribosomal protein 4 (rps4) gene, chloroplast gene encoding chloroplast protein, |
| 10680 | 23714 | | 0.51 | 1.4E-01 | T84293.1 | EST_HUMAN | partial cds |
| 10825 | 23858 | 37481 | 0.7 | 1.4E-01 | Z89117.1 | NT | q128h08.y1 Morton Fetal Cochlea Homo sapiens cDNA clone IMAGE:2485094 5' |
| 10948 | 24030 | | 1.32 | 1.4E-01 | AA811480.1 | EST_HUMAN | q128h08.y1 Morton Fetal Cochlea Homo sapiens cDNA clone IMAGE:2485094 5' |
| 11081 | 24156 | 37793 | 2.57 | 1.4E-01 | R53400.1 | EST_HUMAN | MPK3-ST0218-211299-013-a03 ST0218 Homo sapiens cDNA |
| 11282 | 24348 | 37885 | 1.69 | 1.4E-01 | AW104982.1 | EST_HUMAN | MPK3-ST0218-211299-013-a03 ST0218 Homo sapiens cDNA |
| 11354 | 24416 | 38071 | 1.68 | 1.4E-01 | T66102.1 | EST_HUMAN | MPK3-ST0218-211299-013-a03 ST0218 Homo sapiens cDNA |

Page 111 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 11354 | 24416 | 38072 | 1.58 | 1.4E-01 | T88102.1 | EST_HUMAN | yea7g10.11 Soares fetal liver spleen TNF α mRNA cDNA clone IMAGE:120830 6' |
| 11356 | 24418 | 38076 | 2.36 | 1.4E-01 | P08648 | SWISSPROT | INTEGRIN ALPHA-5 PRECURSOR (FIBRONECTIN RECEPTOR ALPHA SUBUNIT) (INTEGRIN ALPHA-5) (CD49E) |
| 11572 | 24827 | 38306 | 1.85 | 1.4E-01 | X66092.1 | NT | C. parvovirus ORF for putative membrane transport protein |
| 11613 | 20617 | | 1.57 | 1.4E-01 | AW016373.1 | EST_HUMAN | U1H-B10-eat-c-08-0-U1H1 NCI_CGAP_Sub01 Homo sapiens cDNA clone IMAGE:2710289 3' |
| 11757 | 23943 | 37570 | 2.07 | 1.4E-01 | U28760.1 | NT | Borrelia burgdorferi glyceraldehyde-3-phosphate dehydrogenase (GAPDH), phosphoglycerate kinase (PGK), triosephosphate isomerase (TPI) genes, complete cds |
| 11816 | 24808 | | 1.51 | 1.4E-01 | X52102.1 | NT | M. musculus p18K gene for 18 kDa protein |
| 12038 | 25020 | 38724 | 10.18 | 1.4E-01 | AF146783.2 | NT | Mus musculus neuromedin U precursor (Nmu) gene, partial cds; iPLP (Tphlp) gene, partial cds; CLOCK (Clock) gene, complete cds; PFT27 (Pht27) gene, complete cds; and H5AR (H5ar) gene, complete cds |
| 12560 | 25382 | 32038 | 4.68 | 1.4E-01 | X74773.1 | NT | P. salina plastid gene secY |
| 12674 | 25380 | | 3.28 | 1.4E-01 | 11968117 | NT | Rattus norvegicus doamin (Doe), mRNA |
| 12805 | 25405 | | 1.71 | 1.4E-01 | BE084835.2 | EST_HUMAN | 601G59490R1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3888671 3' |
| 12827 | 26175 | | 2.83 | 1.4E-01 | BE513802.1 | EST_HUMAN | 601315638F1 NIH_MGC_3 Homo sapiens cDNA clone IMAGE:3834328 5' |
| 12724 | 25482 | | 7.52 | 1.4E-01 | AF083221.1 | NT | Fugu rubripes putative neurotransmitter receptors, YDR140w homolog, and glycamide ribonucleotide transferase (GART) genes, complete cds |
| 12742 | 25483 | | 4.02 | 1.4E-01 | D04004.1 | NT | Synechocystis sp. PCC6803 complete genome, 23/27, 2898767-3002865 |
| 12834 | 26193 | | 3.2 | 1.4E-01 | P10447 | SWISSPROT | TYROSINE-PROTEIN KINASE TRANSFORMING PROTEIN ABL |
| 12926 | 25812 | | 1.45 | 1.4E-01 | X68192.1 | NT | V. planifolia mRNA for methyltransferase |
| 13084 | 25977 | | 3.36 | 1.4E-01 | D92983.1 | NT | Mus musculus mRNA for prolidase, complete cds |
| 13178 | 25765 | | 1.88 | 1.4E-01 | AW377898.1 | EST_HUMAN | MRO-H10208-221298-204-c08 H10208 Homo sapiens cDNA |
| 332 | 13548 | 26576 | 2.27 | 1.3E-01 | 4758487 | NT | Homo sapiens G protein-coupled receptor 50 (GPR50) mRNA |
| 332 | 13548 | 26577 | 2.27 | 1.3E-01 | 4758487 | NT | Homo sapiens G protein-coupled receptor 50 (GPR50) mRNA |
| 542 | 13735 | 26769 | 1.88 | 1.3E-01 | AB013139.1 | NT | Homo sapiens gene for NBS1, complete cds |
| 653 | 13839 | 26866 | 2.43 | 1.3E-01 | AJ277606.1 | NT | Human calicivirus HUNLV/Girlingtan/93/JUK RNA for capsid protein (ORF2), strain HUNLV/Girlingtan/93/JUK |
| 653 | 13839 | 26867 | 2.43 | 1.3E-01 | AJ277606.1 | NT | Human calicivirus HUNLV/Girlingtan/93/JUK RNA for capsid protein (ORF2), strain HUNLV/Girlingtan/93/JUK |
| 887 | 14043 | 27108 | 1.55 | 1.3E-01 | X63330.1 | NT | P. dumerilii histone gene cluster for core histones H2A, H2B, H3 and H4 |
| 917 | 14092 | 27167 | 1.26 | 1.3E-01 | AF139518.1 | NT | Rattus norvegicus A-kinase anchor protein mRNA, complete cds |
| 1052 | 14218 | 27274 | 2.14 | 1.3E-01 | AL117078.1 | NT | Borrelia cinerea strain T4 cDNA library under conditions of nitrogen deprivation |
| 1151 | 14315 | | 2.04 | 1.3E-01 | AL116265.1 | NT | Borrelia cinerea strain T4 cDNA library under conditions of nitrogen deprivation |
| 1242 | 14401 | 27482 | 1.67 | 1.3E-01 | AV712487.1 | EST_HUMAN | AV712487 DCA Homo sapiens cDNA clone DCAAF05 5' |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 1475 | 14628 | | 0.97 | 1.3E-01 | AF146277.1 | NT | Homo sapiens adapter protein CMS mRNA, complete cds |
| 1805 | 15048 | 28159 | 1.02 | 1.3E-01 | 6880957 | NT | Mus musculus procollagen, type XI, alpha 1 (Col11a1), mRNA |
| 2014 | 15154 | 28259 | 2.73 | 1.3E-01 | AL117078.1 | NT | Bathys chireia strain T4 cDNA library under conditions of nitrogen deprivation |
| 2239 | 15372 | | 1.09 | 1.3E-01 | AJ243578.1 | NT | Rhodospseudomonas acidophila puc85, pucA6, pucB6, pucA7, pucB8, pucA9 and pucC genes and ORF151 |
| 2364 | 15485 | | 1.38 | 1.3E-01 | AW812104.1 | EST_HUMAN | RC4-ST0173-191059-032-412 ST0173 Homo sapiens cDNA |
| 2465 | 15583 | | 3.31 | 1.3E-01 | AE001016.1 | NT | Archaeoglobus fulgidus section 91 of 172 of the complete genome |
| 2653 | 15776 | 28589 | 2.78 | 1.3E-01 | M85918.1 | NT | Carassius auratus keratin type I mRNA, complete cds |
| 3440 | 16608 | 29626 | 1.21 | 1.3E-01 | AF198779.1 | NT | Homo sapiens transcription factor IGHM enhancer 3, JM11 protein, JM4 protein, JM5 protein, T64 protein, JM10 protein, A4 differentiation-dependent protein, triple LIM domain protein 6, and synaptophysin genes, complete cds, and L-type calcium channel α |
| 3539 | 16704 | 29715 | 1.11 | 1.3E-01 | M21572.1 | NT | Bovine branched chain alpha-keto acid dihydrolipoyl transacylase mRNA, complete cds |
| 3816 | 16976 | 29579 | 0.85 | 1.3E-01 | AP000001.1 | NT | Pyrococcus horikoshii OT3 genomic DNA, 1-287000 nt. position (177) |
| 3816 | 16976 | 29880 | 0.85 | 1.3E-01 | AP000001.1 | NT | Pyrococcus horikoshii OT3 genomic DNA, 1-287000 nt. position (177) |
| 3822 | 16982 | 29885 | 1.55 | 1.3E-01 | AB032159.1 | NT | Homo sapiens DD4 gene for dihydrolipoyl dehydrogenase 4 [AKR 10C], exon 2 |
| 3905 | 17064 | 30063 | 0.69 | 1.3E-01 | 6978840 | NT | Rattus norvegicus Fibrinogen, gamma polypeptide (Fgg), mRNA |
| 4098 | 17251 | | 1.08 | 1.3E-01 | AL161581.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 77 |
| 4162 | 13839 | 26858 | 0.88 | 1.3E-01 | AJ277606.1 | NT | Human calicivirus HUJNLV/Girlington/93/UK RNA for capsid protein (ORF2), strain HUJNLV/Girlington/93/UK |
| 4162 | 13839 | 26867 | 0.88 | 1.3E-01 | AJ277606.1 | NT | Human calicivirus HUJNLV/Girlington/93/UK RNA for capsid protein (ORF2), strain HUJNLV/Girlington/93/UK |
| 4257 | 17402 | | 0.82 | 1.3E-01 | AF020713.1 | NT | Bacteriophage SPBc2 complete genome |
| 4274 | 17419 | | 3.74 | 1.3E-01 | AW364341.1 | EST_HUMAN | QV3-DT0018-081289-036-603 DT0018 Homo sapiens cDNA |
| 4281 | 17426 | 30416 | 1.82 | 1.3E-01 | AF026805.1 | NT | Schistosoma mansoni fructose biphosphate aldolase mRNA, complete cds |
| 4302 | 17445 | 30431 | 21.62 | 1.3E-01 | AW273741.1 | EST_HUMAN | xy23110.x1 Soares_NFL_T_GBC ST Homo sapiens cDNA clone IMAGE:2813695 3' |
| 4434 | 17574 | | 1.19 | 1.3E-01 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 4801 | 17736 | 30717 | 0.61 | 1.3E-01 | M21572.1 | NT | Bovine branched chain alpha-keto acid dihydrolipoyl transacylase mRNA, complete cds |
| 4896 | 17792 | 30778 | 2.54 | 1.3E-01 | BE272339.1 | EST_HUMAN | 601126096F1 NIH_MGC 9 Homo sapiens cDNA clone IMAGE:2990063 5' |
| 4748 | 17883 | 30965 | 0.73 | 1.3E-01 | BF079654.1 | EST_HUMAN | 602154306F1 NIH_MGC 83 Homo sapiens cDNA clone IMAGE:4295544 5' |
| 5314 | 18431 | 31401 | 0.78 | 1.3E-01 | AP000005.1 | NT | Pyrococcus horikoshii OT3 genomic DNA, 694001-1168000 nt. position (517) |
| 5440 | 18640 | 31619 | 1.01 | 1.3E-01 | AW468988.1 | EST_HUMAN | ha07b06.x1 NC1_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2872979 3' similar to contains L1.b1 L1 |
| 5478 | 18677 | 31690 | 1.83 | 1.3E-01 | AW804417.1 | EST_HUMAN | L1 repetitive element |
| 5618 | 18812 | | 0.92 | 1.3E-01 | AF107793.1 | NT | QV0-UM00093-100400-189-606 UM0083 Homo sapiens cDNA |
| | | | | | | | Emaricella nidulans DNA-dependent RNA polymerase II RPB140 (RPB2) gene, partial cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe Seq ID NO: | Exon Seq ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6702 | 18865 | | 0.67 | 1.3E-01 | AF056880.1 | NT | Hepatitis C virus 68 CL10 genome polyprotein gene, partial cds |
| 6842 | 18032 | 32338 | 0.72 | 1.3E-01 | BF210920.1 | EST_HUMAN | 601874591F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4101119 5' |
| 6107 | 19287 | 32521 | 0.58 | 1.3E-01 | BF527281.1 | EST_HUMAN | 602039337F2 NCL CGAP_Brn87 Homo sapiens cDNA clone IMAGE:4177233 5' |
| 6107 | 19287 | 32622 | 0.58 | 1.3E-01 | BF527281.1 | EST_HUMAN | 602039337F2 NCL CGAP_Brn87 Homo sapiens cDNA clone IMAGE:4177233 5' |
| 6612 | 19772 | 33163 | 18.92 | 1.3E-01 | AB031326.1 | NT | Schizosaccharomyces pombe gene for Alp41, complete cds |
| 6698 | 19855 | 33246 | 2.26 | 1.3E-01 | X88891.1 | NT | C-jacchus intron 4 of visual pigment gene (red allele) |
| 6927 | 20242 | | 0.74 | 1.3E-01 | W26367.1 | EST_HUMAN | 2663 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA |
| 6974 | 20202 | 33628 | 0.7 | 1.3E-01 | BE782926.1 | EST_HUMAN | 601465957F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3868079 5' |
| 6974 | 20202 | 33629 | 0.7 | 1.3E-01 | BE782926.1 | EST_HUMAN | 601465957F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3868079 5' |
| 7155 | 20289 | | 0.74 | 1.3E-01 | BF528560.1 | EST_HUMAN | 602044346F1 NCL CGAP_Brn87 Homo sapiens cDNA clone IMAGE:4181868 5' |
| 7412 | 20490 | | 1.97 | 1.3E-01 | H48664.1 | EST_HUMAN | y33d02.1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:207075 5' |
| 8146 | 21228 | | 0.78 | 1.3E-01 | BE272339.1 | EST_HUMAN | 601126096F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:2890063 5' |
| 8160 | 21242 | 34762 | 1.68 | 1.3E-01 | 11423294 | NT | Homo sapiens PRO0611 prolidin (PRO0611), mRNA |
| 8192 | 21274 | 34787 | 1.32 | 1.3E-01 | BF690522.1 | EST_HUMAN | 602187015T1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4288074 3' |
| 8469 | 21650 | 36080 | 0.68 | 1.3E-01 | 11421556 | NT | Homo sapiens TED protein (TED), mRNA |
| 8540 | 21621 | | 4.24 | 1.3E-01 | Z74102.1 | NT | S.cerevisiae chromosome IV reading frame ORF YD054c |
| 8580 | 21661 | | 4.98 | 1.3E-01 | 8923919 | NT | Homo sapiens core histone macroH2A2.2 (MACROH2A2), mRNA |
| 8725 | 21805 | 35342 | 1.26 | 1.3E-01 | BF690522.1 | EST_HUMAN | 602187015T1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4288074 3' |
| 9149 | 22227 | 35770 | 0.57 | 1.3E-01 | R11172.1 | EST_HUMAN | y39g11.1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:129284 5' similar to SP-RL2B_RAT P29316 80S RIBOSOMAL PROTEIN ; |
| 9149 | 22227 | 35771 | 0.57 | 1.3E-01 | R11172.1 | EST_HUMAN | y39g11.1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:129284 5' similar to SP-RL2B_RAT P29316 80S RIBOSOMAL PROTEIN ; |
| 9420 | 22494 | 36060 | 0.69 | 1.3E-01 | 11068003 | NT | Plutella xylostella grandovirus, complete genome |
| 9420 | 22494 | 36061 | 0.69 | 1.3E-01 | 11068003 | NT | Plutella xylostella grandovirus, complete genome |
| 8672 | 22634 | 36204 | 4.19 | 1.3E-01 | AF023129.1 | NT | Oryctolagus cuniculus H+K+ATPase alpha 2c subunit mRNA, complete cds |
| 8973 | 23012 | | 0.73 | 1.3E-01 | N86948.1 | EST_HUMAN | J7837F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone J7837 5' similar to B-CELL RECEPTOR ASSOCIATED PROTEIN (BAP) 29 |
| 10257 | 23262 | | 1.07 | 1.3E-01 | 8393940 | NT | Rattus norvegicus peptidyl arginine deiminase, type IV (Pdi4), mRNA |
| 10335 | 23370 | 36580 | 0.95 | 1.3E-01 | AW851699.1 | EST_HUMAN | MR2-CT0222-201069-001-e01 CT0222 Homo sapiens cDNA |
| 10603 | 23664 | 37244 | 1.08 | 1.3E-01 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 10743 | 23776 | 37389 | 0.65 | 1.3E-01 | AU121237.1 | EST_HUMAN | AU121237 HEMBBT Homo sapiens cDNA clone HEMBBT002387 5' |
| 10797 | 23830 | 37454 | 0.45 | 1.3E-01 | AW247636.1 | EST_HUMAN | 2820637.Sprtime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2820637 3' |
| 10868 | 23953 | | 2.31 | 1.3E-01 | BF330989.1 | EST_HUMAN | MR4-BT0358-130700-010-108 BT0358 Homo sapiens cDNA |
| 11455 | 24515 | | 1.34 | 1.3E-01 | BF092708.1 | EST_HUMAN | MR4-TN0112-120800-102-e08 TN0112 Homo sapiens cDNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|-----------------------------|-------------------------------|--|
| 11529 | 24885 | | 3.2 | 1.3E-01 | 6671745 | NT | Mus musculus collagen 2, muscle (CII2), mRNA |
| 11610 | 24607 | 38354 | 2.42 | 1.3E-01 | BF677328.1 | EST_HUMAN | 602087045F1 NIH_MGC 83 Homo sapiens cDNA clone IMAGE:4251348 5' |
| 11616 | 24607 | 38355 | 2.42 | 1.3E-01 | BF677328.1 | EST_HUMAN | 602087045F1 NIH_MGC 83 Homo sapiens cDNA clone IMAGE:4251348 5' |
| 11895 | 24883 | 38581 | 7.96 | 1.3E-01 | BE279449.1 | EST_HUMAN | 601196032F1 NIH_MGC 21 Homo sapiens cDNA clone IMAGE:3504804 5' |
| 12000 | 24885 | | 1.41 | 1.3E-01 | AF012836.1 | NT | Thermococcus litoralis trehalose/maltose transporter operon including trehalose/maltose binding protein (malE) and inner membrane proteins MalF (malF) and MalG (malG) genes, complete cds |
| 12023 | 25007 | 38708 | 1.72 | 1.3E-01 | BE619384.1 | EST_HUMAN | 601473369F1 NIH_MGC 88 Homo sapiens cDNA clone IMAGE:3876208 5' |
| 12052 | 25033 | 38739 | 1.52 | 1.3E-01 | BF683555.1 | EST_HUMAN | 602139760F1 NIH_MGC 48 Homo sapiens cDNA clone IMAGE:4300893 5' |
| 12388 | 25279 | 32080 | 2.13 | 1.3E-01 | BE618346.1 | EST_HUMAN | 601482741F1 NIH_MGC 87 Homo sapiens cDNA clone IMAGE:3866003 5' |
| 12543 | 25368 | | 6.39 | 1.3E-01 | AJ242790.1 | NT | Gallus gallus scyc1 gene for lymphocytin, exon 1-3 |
| 12984 | 25627 | | 1.31 | 1.3E-01 | AB028829.1 | NT | Epithelial fluidicillin mRNA for sALK-9, complete cds |
| 12995 | 25947 | | 1.87 | 1.3E-01 | AW001114.1 | EST_HUMAN | wu24d09.x1 Soares, Dieckgraefe, colon_NHCD Homo sapiens cDNA clone IMAGE:2520977 3' similar to TR:Q16671 |
| 394 | 13631 | 26688 | 13.87 | 1.2E-01 | A421744.1 | EST_HUMAN | tf93b02.x1 NCL CGAP_Brn23 Homo sapiens cDNA clone IMAGE:2088538 3' similar to gb:U06760_mae1 |
| 437 | 13237 | | 1.42 | 1.2E-01 | U66912.1 | NT | ANNEXIN V (HUMAN); |
| 561 | 13753 | | 3.82 | 1.2E-01 | AF039442.1 | NT | Dictyostellium discoideum ORF DG1016 gene, partial cds |
| 1408 | 14662 | 27638 | 2.32 | 1.2E-01 | AU149148.1 | EST_HUMAN | Homo sapiens colon cancer antigen NY-CO-45 mRNA, partial cds |
| 1408 | 14662 | 27637 | 2.32 | 1.2E-01 | AU149146.1 | EST_HUMAN | AU149148 NT2RM4 Homo sapiens cDNA clone NT2RM4001691 3' |
| 1414 | 14568 | | 3.35 | 1.2E-01 | AV735249.1 | EST_HUMAN | AU149146 NT2RM4 Homo sapiens cDNA clone NT2RM4001691 3' |
| 1416 | 14572 | | 0.94 | 1.2E-01 | AL445066.1 | NT | AV735249 cda Homo sapiens cDNA clone cdaAJB11 5' |
| 1536 | 14689 | | 0.94 | 1.2E-01 | AA897474.1 | EST_HUMAN | Thermoplasma acidophilum complete genome, segment 4/5 |
| 1660 | 14812 | 27897 | 1.1 | 1.2E-01 | Q14934 | SWISSPROT | al48a09.s1 Soares, NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1460584 3' similar to TR:Q16671 |
| 1682 | 14834 | 27919 | 2.88 | 1.2E-01 | A1285402.1 | EST_HUMAN | Q16671 ANTI-MULLERIAN HORMONE TYPE II RECEPTOR PRECURSOR. ; |
| 1808 | 14957 | | 25.75 | 1.2E-01 | X89211.1 | NT | NUCLEAR FACTOR OF ACTIVATED T-CELLS, CYTOPLASMIC 4 (T CELL TRANSCRIPTION FACTOR NFAT3) (NF-ATC4) (NF-A13) |
| 1970 | 15113 | | 1.66 | 1.2E-01 | AW448368.1 | EST_HUMAN | q186f09.x1 NCL CGAP_Eco2 Homo sapiens cDNA clone IMAGE:1860563 3' |
| 2253 | 15386 | 28514 | 1.68 | 1.2E-01 | BF248480.1 | EST_HUMAN | H. sapiens DNA for endogenous retroviral like element |
| 2450 | 15378 | | 0.99 | 1.2E-01 | Z21405.1 | EST_HUMAN | U1-H-B13-alk-e-10-0-UJ.s1 NCL CGAP_Sub55 Homo sapiens cDNA clone IMAGE:2734554 3' |
| 2656 | 15779 | 28893 | 1.84 | 1.2E-01 | AW988556.1 | EST_HUMAN | 601821667F1 NIH_MGC 62 Homo sapiens cDNA clone IMAGE:4048224 5' |
| 2905 | 16083 | 29098 | 1.16 | 1.2E-01 | U18018.1 | NT | HSAAAE2T TEST1, Human adult Testis tissue Homo sapiens cDNA |
| 2987 | 16143 | 29162 | 1.9 | 1.2E-01 | A1720470.1 | EST_HUMAN | QY3-BN0046-220300-128-F10 BN0046 Homo sapiens cDNA |
| | | | | | | | Human E1A enhancer binding protein (E1A-F) mRNA, partial cds |
| | | | | | | | ee80c09.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2335024 3' similar to gb:U05085 |
| | | | | | | | 60S RIBOSOMAL PROTEIN L30 (HUMAN); |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 3001 | 16177 | 29188 | 3.44 | 1.2E-01 | M16384.1 | NT | Human creatine kinase-B mRNA, complete cds |
| 3068 | 18244 | 29265 | 0.91 | 1.2E-01 | X58882.1 | NT | Wheat mRNA for a group 3 late embryogenesis abundant protein (LEA) |
| 3302 | 18476 | 29468 | 2.62 | 1.2E-01 | AW370688.1 | EST_HUMAN | QV1-BT0259-261089-021-405 BT0259 Homo sapiens cDNA |
| 3330 | 18503 | | 0.74 | 1.2E-01 | U67800.1 | NT | Methanococcus jannaschii section 142 of 160 of the complete genome |
| 3668 | 18733 | | 0.68 | 1.2E-01 | Z99118.1 | NT | Bacillus subtilis complete genome (section 15 of 21); from 2795131 to 3013540 |
| 3610 | 18774 | 29789 | 1.12 | 1.2E-01 | X58882.1 | NT | Wheat mRNA for a group 3 late embryogenesis abundant protein (LEA) |
| 3610 | 18774 | 29789 | 1.12 | 1.2E-01 | X58882.1 | NT | Wheat mRNA for a group 3 late embryogenesis abundant protein (LEA) |
| 3694 | 18733 | | 1.22 | 1.2E-01 | Z99118.1 | NT | Bacillus subtilis complete genome (section 15 of 21); from 2795131 to 3013540 |
| 3855 | 17024 | | 0.95 | 1.2E-01 | BF128551.1 | EST_HUMAN | P.clarkii mRNA; repeat region (ID 2MR17) |
| 4298 | 17441 | 30428 | 2.1 | 1.2E-01 | Z54255.1 | NT | P.clarkii mRNA; repeat region (ID 2MR17) |
| 4298 | 17441 | 30427 | 2.1 | 1.2E-01 | Z54255.1 | NT | P.clarkii mRNA; repeat region (ID 2MR17) |
| 4431 | 17671 | 30562 | 0.59 | 1.2E-01 | M15861.1 | NT | Chicken neural cell-adhesion molecule (N-CAM) gene, exon 19 |
| 4942 | 18072 | | 1.94 | 1.2E-01 | X73116.1 | NT | W. suavis mitochondria ori |
| 5364 | 18567 | 31433 | 0.89 | 1.2E-01 | AA744368.1 | EST_HUMAN | my63c04.s1 NCL CGAP GCBT1 Homo sapiens cDNA clone IMAGE:1282950 3' |
| 5416 | 18617 | 31591 | 0.93 | 1.2E-01 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 5425 | 18626 | 31601 | 2.5 | 1.2E-01 | W33035.1 | EST_HUMAN | zc08c02.r1 Soares parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:321689 5' |
| 5484 | 18683 | 31700 | 1.65 | 1.2E-01 | Z98266.1 | NT | Homo sapiens gene encoding plakophilin (exons 1-13) |
| 5622 | 18816 | 31885 | 1.14 | 1.2E-01 | Z48234.1 | NT | M.domestica Borkh. Granny Smith adh mRNA for alcohol dehydrogenase |
| 6328 | 18500 | 32058 | 1.9 | 1.2E-01 | BE620945.1 | EST_HUMAN | 601493518F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3885613 5' |
| 6377 | 18546 | 32803 | 0.81 | 1.2E-01 | P10842 | SWISSPROT | MATING-TYPE P-SPECIFIC POLYPEPTIDE P1 |
| 6428 | 18556 | 32862 | 2.26 | 1.2E-01 | AW845275.1 | EST_HUMAN | IL0-CT0031-221099-113-ed4 CT0031 Homo sapiens cDNA |
| 6493 | 18659 | 33022 | 1.52 | 1.2E-01 | M26825.1 | NT | Mouse galactosyltransferase mRNA, complete cds |
| 6561 | 18723 | 33101 | 0.58 | 1.2E-01 | AA747635.1 | EST_HUMAN | rx85c01.s1 NCL CGAP GCBT1 Homo sapiens cDNA clone IMAGE:1269024 3' |
| 6785 | 19940 | 33338 | 1.18 | 1.2E-01 | BF347985.1 | EST_HUMAN | 602023112F1 NCL CGAP_Brn87 Homo sapiens cDNA clone IMAGE:4158388 5' |
| 7164 | 20288 | 33731 | 0.64 | 1.2E-01 | H47789.1 | EST_HUMAN | yp80f04.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:193759 5' |
| 7164 | 20288 | 33732 | 0.64 | 1.2E-01 | H47789.1 | EST_HUMAN | yp80f04.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:193759 5' |
| 7772 | 20829 | 34320 | 0.62 | 1.2E-01 | AJ271741.1 | NT | Homo sapiens partial ILF3 gene for interleukin enhancer binding factor 3 (alternative transcripts drbp76, drbp76 gamma, drbp78 alpha and ILF3) |
| 8076 | 21158 | | 1.13 | 1.2E-01 | BE007072.1 | EST_HUMAN | PM3-BN0137-280300-002-009 BN0137 Homo sapiens cDNA |
| 8149 | 21231 | 34751 | 2.45 | 1.2E-01 | A1913753.1 | EST_HUMAN | we89g03.x1 NCL CGAP_O63 Homo sapiens cDNA clone IMAGE:2326804 3' similar to SW:GST2_HUMAN |
| 8197 | 21278 | 34801 | 0.64 | 1.2E-01 | Q02369 | SWISSPROT | Q95735 MICROSOMAL GLUTATHIONE S-TRANSFERASE II: |
| 8504 | 21685 | 35119 | 0.63 | 1.2E-01 | A1832681.1 | EST_HUMAN | NADH-UBIQUINONE OXIDOREDUCTASE B22 SUBUNIT (COMPLEX I-B22) (Cl-B22) |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8590 | 21671 | | 10.78 | 1.2E-01 | AW083652.1 | EST_HUMAN | xc49d07.x1 NCI_CGAP_E602 Homo sapiens cDNA clone IMAGE:2587697 3' similar to gb:MT3452 LAMIN A (HUMAN); |
| 8611 | 21651 | | 3.78 | 1.2E-01 | AF053772.1 | NT | Staphylococcus aureus plasmid pSK23 putative recombinase Sin (sin) gene, partial cds; and transcriptional regulator OacR (qacR) and multidrug efflux protein QacB (qacB) genes, complete cds |
| 8649 | 21729 | 35268 | 1.09 | 1.2E-01 | J03956.1 | NT | N.crassa vacuolar ATPase 57-Kd subunit (vma-2) gene, complete cds |
| 8649 | 21729 | 35267 | 1.09 | 1.2E-01 | J03956.1 | NT | N.crassa vacuolar ATPase 57-Kd subunit (vma-2) gene, complete cds |
| 8800 | 21879 | | 1.02 | 1.2E-01 | AJ271736.1 | NT | Homo sapiens Xq pseudautosomal region, segment 2/2 |
| 8887 | 21966 | | 1.44 | 1.2E-01 | U32714.1 | NT | Haemophilus influenzae Rd section 29 of 193 of the complete genome |
| 8920 | 21989 | | 0.77 | 1.2E-01 | X15191.1 | NT | M.musculus DNA fragment of Apolipoprotein B gene |
| 9771 | 22767 | 36338 | 1.37 | 1.2E-01 | X77961.1 | NT | S.cerevisiae HXT5 gene |
| 10208 | 23245 | 36835 | 0.9 | 1.2E-01 | AV710857.1 | EST_HUMAN | AV710857 Cu Homo sapiens cDNA clone CUAKE08 5' |
| 11125 | 24197 | | 2.55 | 1.2E-01 | D26184.1 | NT | Yeast MPT5 gene for suppressor protein, complete cds |
| 11320 | 24383 | | 3.03 | 1.2E-01 | BE962324.2 | EST_HUMAN | 60165578R1NH_MGC 65 Homo sapiens cDNA clone IMAGE:3846283 3' |
| 11414 | 24475 | | 1.73 | 1.2E-01 | BF314481.1 | EST_HUMAN | 601900763F1 NIH_MGC 19 Homo sapiens cDNA clone IMAGE:4130103 5' |
| 11533 | 24599 | 38284 | 2.78 | 1.2E-01 | AF160493.1 | NT | Homo sapiens dynein intermediate chain DNA11 (DNAI1) gene, exon 17 |
| 11593 | 24646 | 38329 | 1.72 | 1.2E-01 | R40249.1 | EST_HUMAN | yf80c02.s1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:28880 3' |
| 11798 | 24788 | | 2.47 | 1.2E-01 | M65109.1 | NT | Rabbit glycogen-associated protein phosphatase regulatory subunit (RG1) mRNA, complete cds |
| 12161 | 26128 | | 2.09 | 1.2E-01 | AV658033.1 | EST_HUMAN | AY658033 GLC Homo sapiens cDNA clone GLCFB12 3' |
| 12522 | 25355 | | 4.37 | 1.2E-01 | AJ271736.1 | NT | Homo sapiens Xq pseudautosomal region, segment 2/2 |
| 12614 | 26128 | 31544 | 2 | 1.2E-01 | Q04912 | SWISSPROT | MACROPHAGE-STIMULATING PROTEIN RECEPTOR PRECURSOR (MSP RECEPTOR) (P185-RON) (CDW136) (CD136 ANTIGEN) |
| 12732 | 25488 | | 1.65 | 1.2E-01 | AF188802.1 | NT | Drosophila melanogaster strain Oregon R potential RNA-binding protein gene, complete cds; and syntactin gene, partial cds |
| 12734 | 13753 | | 18.32 | 1.2E-01 | AF039442.1 | NT | Homo sapiens colon cancer antigen NY-CO-45 mRNA, partial cds |
| 12893 | 25574 | | 1.4 | 1.2E-01 | X63981.1 | NT | R.norvegicus NF68 gene for 68kDa neurofilament |
| 12898 | 25929 | 31981 | 4.89 | 1.2E-01 | A1299903.1 | EST_HUMAN | qn20g05.x1 NCI_CGAP_Lu6 Homo sapiens cDNA clone IMAGE:1898840 3' |
| 12992 | 25944 | | 3.48 | 1.2E-01 | L10187.1 | NT | Xenopus laevis integrin alpha 3 subunit mRNA, partial cds |
| 12997 | 26050 | | 6.44 | 1.2E-01 | O96433 | SWISSPROT | CYCLIN T |
| 13031 | 26379 | 31960 | 1.47 | 1.2E-01 | AE004428.1 | NT | Vibrio cholerae chromosome II, section 85 of 83 of the complete chromosome |
| 13221 | 25795 | | 1.23 | 1.2E-01 | AF090141.1 | NT | Chrysothrix merlingosaplicum G0B-1 carboxypeptidase gene, complete cds |
| 578 | 13770 | 28782 | 1.56 | 1.1E-01 | AI581003.1 | EST_HUMAN | ht18d08.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2187983 3' |
| 890 | 13815 | 26838 | 1.33 | 1.1E-01 | AA569008.1 | EST_HUMAN | nm38g11.s1 NCI_CGAP_Co10 Homo sapiens cDNA clone IMAGE:1088620 3' similar to gb:X06989 _mat1 HEME OXYGENASE 1 (HUMAN); |

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 1078 | 14245 | 27302 | 1.61 | 1.1E-01 | BF687308.1 | EST_HUMAN | 602129847F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4286771 5' |
| 1109 | 14274 | | 1.85 | 1.1E-01 | AL181560.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 60 |
| 1186 | 16031 | 27405 | 3.67 | 1.1E-01 | AW972158.1 | EST_HUMAN | EST1384142 IMAGE ressequencing, MAGL Homo sapiens cDNA |
| 1278 | 14435 | 27503 | 1.88 | 1.1E-01 | D64004.1 | NT | Syrrhocyctis sp. PC08803 complete genome, 23/27, 2886767-3002885 |
| 1549 | 14701 | 27780 | 2.75 | 1.1E-01 | AU140363.1 | EST_HUMAN | AU140363 PLACE2 Homo sapiens cDNA clone PLACE2000403 5' |
| 2255 | 15388 | | 1.73 | 1.1E-01 | AJ006701.1 | NT | Homo sapiens mRNA for putative serine/threonine protein kinase, partial |
| 2368 | 15519 | | 2.02 | 1.1E-01 | 6755215 | NT | Mus musculus pro T-cell antigen receptor alpha (Pctra), mRNA |
| 2603 | 15959 | | 1.08 | 1.1E-01 | 6978678 | NT | Rattus norvegicus Procollagen II alpha 1 (Col2a1), mRNA |
| 2633 | 15756 | | 1.27 | 1.1E-01 | AW821809.1 | EST_HUMAN | RC0-ST0379-210100-032-g04 ST0379 Homo sapiens cDNA |
| 2917 | 16095 | 29107 | 0.89 | 1.1E-01 | S82418.1 | NT | Interleukin-12 p35 subunit [mice, Genomic, 700 nt, segment 4 of 6] |
| 3098 | 18274 | 29288 | 0.81 | 1.1E-01 | F03265.1 | EST_HUMAN | HSC1RF022 normalized infant brain cDNA Homo sapiens cDNA clone c-1f02 3' |
| 3422 | 16591 | | 1.56 | 1.1E-01 | 6753231 | NT | Mus musculus calcium channel, voltage-dependent, T type, alpha 1G subunit (Caena1g), mRNA |
| 3508 | 16875 | 29685 | 2.09 | 1.1E-01 | BE393186.1 | EST_HUMAN | 607308678F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3627068 5' |
| 3540 | 18705 | 29716 | 1.47 | 1.1E-01 | X82135.1 | NT | C.reinhardtii nuclear gene on linkage group XIX |
| 3580 | 18746 | 28783 | 0.71 | 1.1E-01 | R88948.1 | EST_HUMAN | yc62g08.e1 Soares fetal liver spleen TNF1L5 Homo sapiens cDNA clone IMAGE:200414 3' similar to contains Alu repetitive element |
| 3673 | 18838 | 28948 | 0.7 | 1.1E-01 | Y07695.1 | NT | A.immersus gene for transposase |
| 3781 | 16952 | | 0.96 | 1.1E-01 | P97384 | SWISSPROT | ANNEXIN XI (GALCYCLIN-ASSOCIATED ANNEXIN 50) (GAP-50) |
| 3800 | 18961 | 28965 | 1.28 | 1.1E-01 | X52708.1 | NT | G.gallus gene encoding non-histone chromosomal protein HMG-14b, exons 4 and 5 |
| 4226 | 17374 | 30359 | 1.2 | 1.1E-01 | AW818412.1 | EST_HUMAN | MR3-ST0260-280100-025-g07 ST0260 Homo sapiens cDNA |
| 4226 | 17374 | 30360 | 1.2 | 1.1E-01 | AW819412.1 | EST_HUMAN | MR3-ST0260-280100-025-g07 ST0260 Homo sapiens cDNA |
| 4233 | 17380 | | 0.83 | 1.1E-01 | AF030001.1 | NT | Mus musculus major histocompatibility locus class III region:butyrophilin-like protein gene, partial cds; Natch4, PBX2, RAGE, lysophosphatidic acid acyl transferase-alpha, palmitoyl-protein thioesterase 2 (PPT2), CREB-RP, and tenascin X (TNX) genes, complex |
| 4387 | 17510 | | 11.45 | 1.1E-01 | AF157086.1 | NT | Drosophila melanogaster klarsicht protein (klar) mRNA, complete cds |
| 4401 | 17644 | 30528 | 0.76 | 1.1E-01 | AW802058.1 | EST_HUMAN | IL5-UM0070-020500-058-e08 UM0070 Homo sapiens cDNA |
| 4762 | 17897 | 30877 | 0.92 | 1.1E-01 | S44857.1 | NT | Tape-1=Integral membrane protein TAPA-1 [mice, B cell lymphoma line 38C13, Genomic, 1973 nt, segment 1 of 7] |
| 4953 | 18083 | 31059 | 1.23 | 1.1E-01 | Y07695.1 | NT | A.immersus gene for transposase |
| 5134 | 17380 | | 0.75 | 1.1E-01 | AF030001.1 | NT | Mus musculus major histocompatibility locus class III region:butyrophilin-like protein gene, partial cds; Natch4, PBX2, RAGE, lysophosphatidic acid acyl transferase-alpha, palmitoyl-protein thioesterase 2 (PPT2), CREB-RP, and tenascin X (TNX) genes, complex |
| 5787 | 18979 | | 2.59 | 1.1E-01 | AA747216.1 | EST_HUMAN | mx76a03.s1 NCL CGAP_Ew1 Homo sapiens cDNA clone IMAGE:1288140 similar to contains Alu repetitive element; contains element MER35 repetitive element; |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 5867 | 19047 | 32353 | 1.32 | 1.1E-01 | AF020927.1 | NT | 6 Homo sapiens diacylglycerol kinase 3 (DAGK3) gene, exon 6 |
| 5894 | 19082 | 32393 | 0.87 | 1.1E-01 | AL110985.1 | NT | Betula cichorea strain T4 cDNA library under conditions of nitrogen deprivation |
| 5927 | 19113 | 32425 | 0.96 | 1.1E-01 | BF339519.1 | EST_HUMAN | 602039176F1 NCI_CGAP_Brm64 Homo sapiens cDNA clone IMAGE:186818 6' |
| 5927 | 19113 | 32426 | 0.96 | 1.1E-01 | BF339519.1 | EST_HUMAN | 602039176F1 NCI_CGAP_Brm64 Homo sapiens cDNA clone IMAGE:186818 5' |
| 5958 | 19144 | 32459 | 1.79 | 1.1E-01 | X68851.1 | NT | S.pombe ste8 gene encoding protein kinase |
| 5992 | 19177 | 32498 | 5.15 | 1.1E-01 | M86533.1 | NT | Providencia rettgeri penicillin G amidase gene |
| 6150 | 19326 | 32671 | 1.88 | 1.1E-01 | AJ007973.1 | NT | Homo sapiens LGMD2B gene |
| 6171 | 19347 | 32693 | 1.37 | 1.1E-01 | BE769152.1 | EST_HUMAN | PM3-FT0024-130600-004-112 FT0024 Homo sapiens cDNA |
| 6191 | 19367 | 32718 | 7.73 | 1.1E-01 | AW853699.1 | EST_HUMAN | RC3-CT0254-280989-011-401 CT0254 Homo sapiens cDNA |
| 6554 | 19716 | 33092 | 0.61 | 1.1E-01 | AL183282.2 | NT | Homo sapiens chromosome 21 segment HS21C082 |
| 6562 | 19724 | 33102 | 1.52 | 1.1E-01 | AF035748.1 | EST_HUMAN | AF035748 Human salivary gland cell line HSG Homo sapiens cDNA clone RL43 |
| 6602 | 19762 | 33150 | 0.84 | 1.1E-01 | AI216307.1 | EST_HUMAN | q978408.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1841098 3' |
| 6742 | 19898 | 33289 | 3.68 | 1.1E-01 | O69835 | SWISSPROT | ACETYL-COENZYME A SYNTHETASE (ACETATE--COA LIGASE)(ACYL-ACTIVATING ENZYME) |
| 6843 | 19998 | 33684 | 2.73 | 1.1E-01 | AF032922.1 | NT | Homo sapiens syntaxin 4 binding protein UNC-18c (UNC-18c) mRNA, complete cds |
| 6934 | 20249 | 33684 | 2.74 | 1.1E-01 | 11432872 | NT | Homo sapiens phosphatidylinositol glycan, class B (PIGB), mRNA |
| 7193 | 20058 | 33468 | 0.74 | 1.1E-01 | AE002165.1 | NT | Ureaplasma urealyticum section 66 of 59 of the complete genome |
| 7193 | 20058 | 33469 | 0.74 | 1.1E-01 | AE002165.1 | NT | Ureaplasma urealyticum section 66 of 59 of the complete genome |
| 7337 | 26217 | 34007 | 1.01 | 1.1E-01 | BF382758.1 | EST_HUMAN | 601816524F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4050653 5' |
| 7456 | 25845 | 34007 | 0.98 | 1.1E-01 | AP000006.1 | NT | Pyrococcus horikoshii OT3 genomic DNA, 1166001-1485000 nt position (817) |
| 7706 | 20771 | 34255 | 7.51 | 1.1E-01 | BF684628.1 | EST_HUMAN | 602140976F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4302019 5' |
| 7706 | 20771 | 34256 | 7.61 | 1.1E-01 | BF684628.1 | EST_HUMAN | 602140976F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4302019 5' |
| 7833 | 20888 | 34391 | 2.16 | 1.1E-01 | P41087 | SWISSPROT | TRAB PROTEIN |
| 7872 | 20926 | | 0.64 | 1.1E-01 | Z14088.1 | NT | B. subtilis gene encoding hypothetical polyketide synthase |
| 7873 | 20927 | 34433 | 3.06 | 1.1E-01 | AA788784.1 | EST_HUMAN | afk1b08.st Soares_parathyroid_tumor_NbHFA Homo sapiens cDNA clone 1240403 3' similar to gb:J03483 |
| 8155 | 21237 | 34768 | 1.58 | 1.1E-01 | U87492.1 | NT | CHROMOGRANIN A PRECURSOR (HOMER); |
| 8403 | 21484 | 35012 | 1.65 | 1.1E-01 | AA493574.1 | EST_HUMAN | Methanococcus jannaschii section 34 of 150 of the complete genome |
| 8403 | 21484 | 35013 | 1.55 | 1.1E-01 | AA493574.1 | EST_HUMAN | h04g10.st NCI_CGAP_Thy1 Homo sapiens cDNA clone IMAGE:943362 |
| 8449 | 21630 | 35059 | 1.26 | 1.1E-01 | X91233.1 | NT | h04g10.st NCI_CGAP_Thy1 Homo sapiens cDNA clone IMAGE:943362 |
| 8489 | 21570 | | 0.94 | 1.1E-01 | AW817918.1 | EST_HUMAN | H.sapiens IL15 gene |
| 8546 | 21627 | 35165 | 2.31 | 1.1E-01 | AL134349.1 | EST_HUMAN | PM1-ST0270-080200-001-409 ST0270 Homo sapiens cDNA |
| | | | | | | | DKFZp547P194_r1 547 (synonym: hibr1) Homo sapiens cDNA clone DKFZp547P194 5' |
| 9018 | 22097 | 35637 | 5.67 | 1.1E-01 | U02482.1 | NT | Pedococcus acidilactici H plasmid pSMB74 pectin ACh production (pap) gene cluster papA, papB, papC and papD genes, complete cds |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 9113 | 22192 | 35737 | 1.04 | 1.1E-01 | AI807474.1 | EST_HUMAN | wf48c01.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2358816 3' similar to contains Alu repetitive element; |
| 9210 | 22288 | 35830 | 0.5 | 1.1E-01 | AF030081.1 | NT | Homo sapiens C16orf3 large protein mRNA, complete cds |
| 9243 | 22320 | 35863 | 2.25 | 1.1E-01 | AA192153.1 | EST_HUMAN | Zp83b12.11 Stralagene muscle 937209 Homo sapiens cDNA clone IMAGE:627743 5' |
| 9243 | 22320 | 35864 | 2.26 | 1.1E-01 | AA192153.1 | EST_HUMAN | Zp83b12.11 Stralagene muscle 937209 Homo sapiens cDNA clone IMAGE:627743 5' |
| 9335 | 22411 | 35864 | 0.71 | 1.1E-01 | Y12727.1 | NT | P. furiosus partial dph5 gene and arg1 gene |
| 9366 | 22441 | 36001 | 2.76 | 1.1E-01 | IT2875.1 | EST_HUMAN | yd19h03.s1 Soares fetal liver spleen INFILS Homo sapiens cDNA clone IMAGE:108725 3' similar to gb:IM81181 SODIUM/POTASSIUM-TRANSPORTING ATPASE BETA-2 (HUMAN); |
| 9392 | 22467 | | 0.63 | 1.1E-01 | BE893280.1 | EST_HUMAN | GM3-110142-271099-026-g11 HT0142 Homo sapiens cDNA |
| 9622 | 22877 | | 0.99 | 1.1E-01 | BE142305.1 | EST_HUMAN | NR2-GN0027-040900-005-a08 GN0027 Homo sapiens cDNA |
| 9696 | 22746 | | 2.33 | 1.1E-01 | BF085149.1 | EST_HUMAN | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 43 |
| 10114 | 23152 | | 0.77 | 1.1E-01 | AL161543.2 | NT | y06c00.s1 Soares placenta NB2HP Homo sapiens cDNA clone IMAGE:147084 3' |
| 10410 | 23445 | | 1.23 | 1.1E-01 | R80590.1 | EST_HUMAN | Ceratitis capitata yoyo retrotransposon gag-like, pol-like and env-like genes, complete cds |
| 10544 | 23579 | 37188 | 1.29 | 1.1E-01 | U80529.1 | NT | Dictyostelium discoideum kinesin Unc104/KIF1a homolog (Unc104) mRNA, complete cds |
| 10914 | 23687 | 37631 | 1.38 | 1.1E-01 | AF245277.1 | NT | HSC:RF022 normalized Infant brain cDNA Homo sapiens cDNA clone c-1rf02 3' |
| 11044 | 16274 | 29288 | 1.78 | 1.1E-01 | F03265.1 | EST_HUMAN | Cerassius auratus activin beta A precursor, mRNA, complete cds |
| 11182 | 24233 | | 2.47 | 1.1E-01 | AF169032.1 | NT | yK35112.1 Soares placenta NB2HP Homo sapiens cDNA clone IMAGE:131759 5' similar to contains Alu repetitive element; contains TAR1 repetitive element ; |
| 11300 | 24366 | 38007 | 3.11 | 1.1E-01 | R23708.1 | EST_HUMAN | Z.mobilis tgt and lig genes encoding RNA guanine transglycosylase and DNA ligase |
| 11483 | 24542 | 38212 | 2.6 | 1.1E-01 | Z11910.1 | NT | Z.mobilis tgt and lig genes encoding RNA guanine transglycosylase and DNA ligase |
| 11483 | 24542 | 38213 | 2.6 | 1.1E-01 | Z11910.1 | NT | Z.mobilis tgt and lig genes encoding RNA guanine transglycosylase and DNA ligase |
| 11510 | 24568 | 38245 | 1.89 | 1.1E-01 | BE002974.1 | EST_HUMAN | 607676924F1 NIH_MGC_27 Homo sapiens cDNA clone IMAGE:385968 5' |
| 11586 | 24639 | 38319 | 3.21 | 1.1E-01 | P17437 | SWISSPROT | SKIN SECRETORY PROTEIN XP2 PRECURSOR (APEG PROTEIN) |
| 11971 | 24966 | | 1.33 | 1.1E-01 | AL161511.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 23 |
| 12378 | 25269 | | 3.78 | 1.1E-01 | BE767023.1 | EST_HUMAN | RC2-NT0112-120600-014-f03 NT0112 Homo sapiens cDNA |
| 12649 | 25970 | | 3.18 | 1.1E-01 | BE974556.1 | EST_HUMAN | 601680551R2 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:3950604 3' |
| 13136 | 25736 | 31947 | 1.88 | 1.1E-01 | BF236753.1 | EST_HUMAN | 601806350F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4134085 5' |
| 1228 | 14388 | | 1.51 | 1.0E-01 | O62855 | SWISSPROT | DEOXYRIBONUCLEASE II PRECURSOR (DNASE II) (ACID DNASE) (LYSOSOMAL DNASE II) |
| 1301 | 14457 | 27523 | 2.18 | 1.0E-01 | AI985498.1 | EST_HUMAN | w08d01.x1 NCJ_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2496577 3' similar to contains MER7.3 |
| 1429 | 14577 | 27650 | 2.3 | 1.0E-01 | AL161504.2 | NT | MER7 repetitive element ; |
| 2858 | 15883 | 28908 | 1.01 | 1.0E-01 | AW451366.1 | EST_HUMAN | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 16 |
| 3813 | 16973 | 29876 | 1.11 | 1.0E-01 | BF236818.1 | EST_HUMAN | UHH-B13-alc-d-07-0-J1.31 NCJ_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2736420 3' |
| 4064 | 17220 | 30228 | 2.6 | 1.0E-01 | BF365703.1 | EST_HUMAN | 601908488F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4134071 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 4527 | 17865 | 30851 | 1.44 | 1.0E-01 | AE002265.2 | NT | Chlamydia pneumoniae AR39, section 91 of 94 of the complete genome |
| 4877 | 17812 | | 0.78 | 1.0E-01 | AI792349.1 | EST_HUMAN | an32c04.y5 Geesler Wilms tumor Homo sapiens cDNA clone IMAGE:1700358 5' |
| 4834 | 17967 | 30955 | 2.17 | 1.0E-01 | U50450.1 | NT | Drosophila melanogaster tyrosine kinase p46 isoform (ter) mRNA, complete cds |
| 5039 | 18167 | 31143 | 2.17 | 1.0E-01 | AW952344.1 | EST_HUMAN | EST384414 IMAGE (resequences), MAGB Homo sapiens cDNA |
| 5261 | 18380 | 31346 | 0.61 | 1.0E-01 | BE389100.1 | EST_HUMAN | 601288989F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3613552 5' |
| 5436 | 18638 | | 9.49 | 1.0E-01 | W86480.1 | EST_HUMAN | zh62h04.s1 Soares fetal_liver spleen_TNPLS_ST Homo sapiens cDNA clone IMAGE:418695 3' |
| 6534 | 18731 | | 0.67 | 1.0E-01 | X54015.1 | NT | X.campestris genes for sensor and regulator protein |
| 8001 | 19188 | | 1.08 | 1.0E-01 | AK024472.1 | NT | Homo sapiens mRNA for FLJ00065 protein, partial cds |
| 6148 | 19325 | 32670 | 13.08 | 1.0E-01 | AF274875.1 | NT | Homo sapiens growth factor receptor-bound protein 7 (GRB7) gene, complete cds |
| 8465 | 19632 | 32993 | 0.9 | 1.0E-01 | AA481876.1 | EST_HUMAN | zv41g10.s1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:766258 3' similar to cortalins |
| 6479 | 19846 | 33008 | 0.72 | 1.0E-01 | AA406039.1 | EST_HUMAN | L1.13 L1 repetitive element; |
| 7164 | 20297 | | 1.87 | 1.0E-01 | R23821.1 | EST_HUMAN | zu67c12.s1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:743082 3' |
| 7814 | 20985 | | 2.39 | 1.0E-01 | Y12488.1 | NT | yt34h08.1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:131675 5' similar to cortalins Alu repetitive element; |
| 8118 | 21200 | 34721 | 0.69 | 1.0E-01 | AA891091.1 | EST_HUMAN | M.musculus wtn gene |
| 8141 | 21223 | 34741 | 2.17 | 1.0E-01 | AF260225.1 | NT | ak32g01.s1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:1407698 3' similar to gb:IM34182 CAMP-DEPENDENT PROTEIN KINASE, GAMMA-CATALYTIC SUBUNIT (HUMAN); |
| 8141 | 21223 | 34742 | 2.17 | 1.0E-01 | AF260225.1 | NT | Homo sapiens TESTIN 2 and TESTIN 3 genes, complete cds, alternatively spliced |
| 8689 | 21769 | | 0.66 | 1.0E-01 | AW189707.1 | EST_HUMAN | Homo sapiens TESTIN 2 and TESTIN 3 genes, complete cds, alternatively spliced |
| 9387 | 22482 | 36028 | 1.12 | 1.0E-01 | AF102855.2 | NT | x109b01.x1 NCL CGAP_Uk4 Homo sapiens cDNA clone IMAGE:2676689 3' similar to gb:X17206 40S |
| 9695 | 22744 | 36314 | 0.67 | 1.0E-01 | R44993.1 | EST_HUMAN | RIBOSOMAL PROTEIN S4 (HUMAN) contains TAR1.13 TAR1 repetitive element; |
| 9707 | 22768 | | 1.9 | 1.0E-01 | MT6729.1 | NT | Rattus norvegicus synaptic SAPAP-interacting protein Syntacton mRNA, complete cds |
| 9750 | 22688 | | 3.15 | 1.0E-01 | AE001501.1 | NT | yg33h04.s1 Soares infant brain_1N1B Homo sapiens cDNA clone IMAGE:34549 3' |
| 9784 | 22761 | 36331 | 0.55 | 1.0E-01 | W01955.1 | EST_HUMAN | Human pro-alpha-1(V) collagen mRNA, complete cds |
| 10026 | 23064 | 36861 | 1.88 | 1.0E-01 | BF240154.1 | EST_HUMAN | Helicobacter pylori, strain J99 section 62 of 132 of the complete genome |
| 10139 | 23177 | 36774 | 8.92 | 1.0E-01 | AB046799.1 | NT | zc68o10.s1 Soares fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:327282 3' |
| 10139 | 23177 | 36775 | 8.92 | 1.0E-01 | AB046799.1 | NT | 601605661F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4133487 6' |
| 10347 | 23382 | | 1.08 | 1.0E-01 | AW967425.1 | EST_HUMAN | Homo sapiens mRNA for KIAA1579 protein, partial cds |
| 10351 | 23386 | 36895 | 0.62 | 1.0E-01 | T51852.1 | EST_HUMAN | Homo sapiens mRNA for KIAA1579 protein, partial cds |
| 10537 | 23572 | 37179 | 1.27 | 1.0E-01 | BE792750.1 | EST_HUMAN | EST369615 IMAGE (resequences), IMAGE Homo sapiens cDNA |
| 10894 | 23978 | | 1.77 | 1.0E-01 | AU159127.1 | EST_HUMAN | yc23a06.s1 Strategene fetal spleen (#637205) Homo sapiens cDNA clone IMAGE:72562 3' similar to contains Alu repetitive element |
| | | | | | | | 601584604F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3939098 5' |
| | | | | | | | AU169127 THYRO1 Homo sapiens cDNA clone THYRO1000895 3' |

Page 121 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 11286 | 24362 | 37991 | 2.17 | 1.0E-01 | BF242946.1 | EST_HUMAN | 601877703F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4106089 5' |
| 11286 | 24362 | 37992 | 2.17 | 1.0E-01 | BF242946.1 | EST_HUMAN | 601877703F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4106089 5' |
| 11685 | 24884 | 38374 | 3.64 | 1.0E-01 | BE780543.1 | EST_HUMAN | 601582658F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3868734 5' |
| 11814 | 24803 | | 1.75 | 1.0E-01 | AP000400.1 | NT | Escherichia coli O157:H7 genomic DNA, prophage (Sakai-VT1) inserted region, substrain:RIMD 0509952 |
| 12384 | 25833 | | 1.73 | 1.0E-01 | BE537719.1 | EST_HUMAN | 601035554F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3461933 5' |
| 12609 | 26408 | | 1.73 | 1.0E-01 | 7662165 | NT | Homo sapiens KIAA0514 gene product (KIAA0514), mRNA |
| 12938 | 26119 | | 3.11 | 1.0E-01 | U62661.1 | NT | Gonyaulax polyedra putative type-1 serine/threonine phosphatase (PP1) mRNA, complete cds |
| 12973 | 26833 | | 1.8 | 1.0E-01 | BE537719.1 | EST_HUMAN | 601035554F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3461933 5' |
| 13045 | 26085 | | 25.82 | 1.0E-01 | U66834.1 | NT | Saccharomyces cerevisiae suppressor of ABF1 (SAB2) gene, complete cds |
| 13117 | 25728 | | 6.58 | 1.0E-01 | AP001507.1 | NT | Bacillus halodurans genomic DNA, section 1/14 |
| 13219 | 26106 | | 1.45 | 1.0E-01 | AE002138.1 | NT | Ureaplasma urealyticum section 39 of 69 of the complete genome |
| 2839 | 15953 | 28060 | 0.96 | 9.9E-02 | AF274008.1 | NT | Drosophila melanogaster cAMP-dependent protein kinase type II regulatory subunit (pka-RII) mRNA, complete cds |
| 2847 | 15961 | 28070 | 0.94 | 9.9E-02 | BE545534.1 | EST_HUMAN | 601070219F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3466385 5' |
| 2847 | 15961 | 28071 | 0.94 | 9.9E-02 | BE545534.1 | EST_HUMAN | 601070219F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3466385 5' |
| 3340 | 16313 | 29928 | 1.31 | 9.9E-02 | AF098810.1 | NT | Homo sapiens neuroxin III-alpha gene, partial cds |
| 7110 | 18536 | 31492 | 8.96 | 9.9E-02 | D83710.1 | NT | Aspergillus terreus BSD mRNA for blasidilin S deaminase, complete cds |
| 8089 | 21181 | 34699 | 0.89 | 9.9E-02 | AW103088.1 | EST_HUMAN | xd43c09.x1 NCL CGAP_Ov23 Homo sapiens cDNA clone IMAGE:2598528 3' similar to contains Alu repetitive element; contains element MIR MIR repetitive element; |
| 8089 | 21181 | 34700 | 0.89 | 9.9E-02 | AW103088.1 | EST_HUMAN | xd43c09.x1 NCL CGAP_Ov23 Homo sapiens cDNA clone IMAGE:2598528 3' similar to contains Alu repetitive element; contains element MIR MIR repetitive element; |
| 9457 | 22573 | 36139 | 1.35 | 9.9E-02 | 6755111 | NT | Mus musculus phospholipid transfer protein (Pltp), mRNA |
| 12132 | 25112 | 38816 | 3.87 | 9.9E-02 | D86890.1 | NT | Human mRNA for KIAA0227 gene, partial cds |
| 677 | 13769 | | 2.18 | 9.9E-02 | X66338.1 | NT | O sativa RAmY3C gene for alpha-amylase |
| 3214 | 16338 | 29398 | 3.66 | 9.9E-02 | AF184274.1 | NT | Daucus carota leucoanthocyanidin dioxygenase 2 (LDOX) mRNA, LDOX-2 allele, complete cds |
| 4339 | 17492 | 30463 | 9.93 | 9.9E-02 | AF257329.1 | NT | Leptospira maculans beta-tubulin mRNA, complete cds |
| 4339 | 17492 | 30464 | 9.93 | 9.9E-02 | AF257329.1 | NT | Leptospira maculans beta-tubulin mRNA, complete cds |
| 7651 | 20719 | | 0.98 | 9.9E-02 | X64133.1 | NT | Human HP TP delta mRNA for protein tyrosine phosphatase delta |
| 8454 | 22570 | | 1.16 | 9.9E-02 | M61043.1 | NT | Human laminin B1 chain gene, exon 28 |
| 11747 | 23833 | 37599 | 1.73 | 9.9E-02 | BF037421.1 | EST_HUMAN | 601460763F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3884287 5' |
| 12332 | 26240 | | 1.29 | 9.9E-02 | 8393751 | NT | Rattus norvegicus microtubule-associated protein tau (Mapt), mRNA |
| 1381 | 14536 | 27611 | 1.92 | 9.7E-02 | AB005808.1 | NT | Alce arborescens mRNA for NADP-malic enzyme, complete cds |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 1617 | 14769 | | 1.01 | 9.7E-02 | 4503710 | NT | Homo sapiens fibroblast growth factor receptor 3 (achondroplasia, thanatophoric dwarfism) (FGFR3) mRNA |
| 2335 | 15466 | 28601 | 2.68 | 9.7E-02 | BE168660.1 | EST_HUMAN | QY1-HT0516-070300-095-e04 HT0516 Homo sapiens cDNA |
| 4091 | 17248 | | 4.05 | 9.7E-02 | Q99795 | SWISSPROT | CELL SURFACE A33 ANTIGEN PRECURSOR (GLYCOPROTEIN A33) |
| 5461 | 18661 | 31639 | 0.59 | 9.7E-02 | AF099189.1 | NT | Caudofoveate crescentus thymidylate kinase (tnk) and DNA polymerase III delta prime subunit (dnaC) genes, complete cds |
| 5461 | 18661 | | 0.59 | 9.7E-02 | AF099189.1 | NT | Caudofoveate crescentus thymidylate kinase (tnk) and DNA polymerase III delta prime subunit (dnaC) genes, complete cds |
| 6138 | 19316 | 32657 | 1.39 | 9.7E-02 | AW954476.1 | EST_HUMAN | EST366546 MAGC resequences, MAGC Homo sapiens cDNA |
| 7450 | 20327 | 34000 | 3.05 | 9.7E-02 | Z09119.1 | NT | Bacillus subtilis complete genome (section 16 of 21); from 2997771 to 3213410 |
| 8171 | 21263 | 34774 | 1.54 | 9.7E-02 | N22798.1 | EST_HUMAN | yw41c03.s1 Weizmann Olfactory Epithelium Homo sapiens cDNA clone IMAGE:254788 3' |
| 8171 | 21263 | 34775 | 1.54 | 9.7E-02 | N22798.1 | EST_HUMAN | yw41c03.s1 Weizmann Olfactory Epithelium Homo sapiens cDNA clone IMAGE:254788 3' |
| 9050 | 22129 | 35673 | 1.49 | 9.7E-02 | A063084.1 | EST_HUMAN | wx78508.x1 NC1 CGAP_Ov68 Homo sapiens cDNA clone IMAGE:2549747 3' similar to gbX62851_mn1 |
| 11472 | 24531 | | 1.72 | 9.7E-02 | U68337.1 | NT | PEPTIDYL-PROLYL CIS-TRANS ISOMERASE A (HUMAN); |
| 2073 | 15213 | 28330 | 1.33 | 9.6E-02 | A080721.1 | EST_HUMAN | Mus musculus Iglatih (Lgth) mRNA, partial cds |
| 2073 | 15213 | 28331 | 1.33 | 9.6E-02 | A080721.1 | EST_HUMAN | oz47d11.x1 Soares_NHHMPu_S1 Homo sapiens cDNA clone IMAGE:1678485 3' |
| 4464 | 17604 | 30382 | 0.67 | 9.6E-02 | Z32866.2 | NT | oz47d11.x1 Soares_NHHMPu_S1 Homo sapiens cDNA clone IMAGE:1678485 3' |
| 5117 | 18244 | 31209 | 0.95 | 9.6E-02 | AW966230.1 | EST_HUMAN | Proteus mirabilis fimbrial operon, strain H4320 |
| 6231 | 19408 | | 2.76 | 9.6E-02 | BE910039.1 | EST_HUMAN | EST378303 MAGC resequences, MAGC Homo sapiens cDNA |
| 8017 | 21068 | | 0.78 | 9.6E-02 | 6678753 | NT | 607498088F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3900165 5' |
| 8571 | 21652 | | 0.65 | 9.6E-02 | AU137084.1 | EST_HUMAN | Mus musculus lymphocyte antigen 78 (Ly78) mRNA |
| 9744 | 22808 | 36386 | 1.46 | 9.6E-02 | AV687898.1 | EST_HUMAN | AU137084 PLACET Homo sapiens cDNA clone PLACE10015740 5' |
| 10078 | 23114 | | 1.34 | 9.6E-02 | BE894895.1 | EST_HUMAN | AV687898 GKC Homo sapiens cDNA clone GKCAAH02 5' |
| 10245 | 23280 | 36878 | 1.04 | 9.6E-02 | AJ243211.1 | NT | 601434030F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3818363 5' |
| 10245 | 23280 | 36877 | 1.04 | 9.6E-02 | AJ243211.1 | NT | Homo sapiens DNMT1 candidate tumour suppressor gene, exons 1 to 55 |
| 10325 | 23360 | 36970 | 0.62 | 9.6E-02 | BF677270.1 | EST_HUMAN | Homo sapiens DNMT1 candidate tumour suppressor gene, exons 1 to 55 |
| 10325 | 23360 | 36968 | 1.96 | 9.6E-02 | AB013985.1 | NT | 602096799F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4250969 5' |
| 10354 | 23389 | 36989 | 1.58 | 9.6E-02 | AB013985.1 | NT | Anthrithum majus transposon Tam3 pseudogene for transposase (in S-5 copy) |
| 10465 | 23500 | 37113 | 3.43 | 9.6E-02 | P08174 | SWISSPROT | Anthrithum majus transposon Tam3 pseudogene for transposase (in S-5 copy) |
| 10881 | 24080 | 37694 | 6.27 | 9.6E-02 | Z79702.1 | NT | COMPLEMENT DECAY-ACCELERATING FACTOR PRECURSOR (CD55) |
| 12019 | 25003 | 38704 | 2.8 | 9.6E-02 | AA025755.1 | EST_HUMAN | Mycobacterium tuberculosis H37Rv complete genome, segment 102/192 |
| 13015 | 26598 | | 1.7 | 9.6E-02 | H14598.1 | EST_HUMAN | zu01g01.s1 Soares_besla_NHT Homo sapiens cDNA clone IMAGE:745392 3' |
| | | | | | | | ym19h03.e1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:48653 3' |

Page 123 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 13143 | 25743 | 31949 | 1.41 | 9.6E-02 | AJ295624.1 | NT | Gallus gallus ALPHA 10 nAChR gene for alpha 10 subunit of nicotinic acetylcholine receptor, exons 1-5 |
| 4217 | 17366 | 30355 | 2.18 | 9.5E-02 | AW992395.1 | EST_HUMAN | CM2-EN0023-050200-087-f12 BN0023 Homo sapiens cDNA |
| 5782 | 18074 | 32280 | 0.88 | 9.5E-02 | PE1854 | SWISSPROT | TRANSKETOLASE 2 (TK 2) (TRANSKETOLASE RELATED PROTEIN) |
| 7455 | 20532 | 34006 | 4.64 | 9.6E-02 | AB003473.1 | NT | Trimeresurus flavoviridis DNA for phospholipase A2 inhibitor, complete cds |
| 7741 | 20802 | 34292 | 7.77 | 9.5E-02 | AL161538.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 38 |
| 7876 | 18974 | 32280 | 0.81 | 9.5E-02 | PE1854 | SWISSPROT | TRANSKETOLASE 2 (TK 2) (TRANSKETOLASE RELATED PROTEIN) |
| 8084 | 21148 | 34688 | 2.85 | 9.5E-02 | BF035881.1 | EST_HUMAN | 601453842F1 NIH_MGC 68 Homo sapiens cDNA clone IMAGE:3857243 5' |
| 8084 | 21148 | 34687 | 2.85 | 9.5E-02 | BF035881.1 | EST_HUMAN | 601453842F1 NIH_MGC 68 Homo sapiens cDNA clone IMAGE:3857243 5' |
| 10918 | 24001 | 37634 | 4.09 | 9.5E-02 | BF035881.1 | EST_HUMAN | 601453842F1 NIH_MGC 68 Homo sapiens cDNA clone IMAGE:3857243 5' |
| 10918 | 24001 | 37635 | 4.09 | 9.5E-02 | BF035881.1 | EST_HUMAN | 601453842F1 NIH_MGC 68 Homo sapiens cDNA clone IMAGE:3857243 5' |
| 12104 | 25084 | | 1.82 | 9.5E-02 | 7657416 | NT | Mus musculus cdd Ozlen-m homolog 3 (Drosophila) (Odz3), mRNA |
| 13097 | 25715 | | 2.81 | 9.5E-02 | AF272732.1 | NT | Arabidopsis thaliana putative transcription factor (MYB110) mRNA, complete cds |
| 1880 | 15024 | 28130 | 3.85 | 9.4E-02 | BF671083.1 | EST_HUMAN | 602150882F1 NIH_MGC 81 Homo sapiens cDNA clone IMAGE:4281817 5' |
| 3885 | 17142 | 30147 | 4.64 | 9.4E-02 | Z33059.1 | NT | M. capricolum DNA for CONTIG MCO73 |
| 6447 | 19814 | 32978 | 0.95 | 9.4E-02 | AF097363.1 | NT | Triticum aestivum heat shock protein 101 (Hsp101a) mRNA, complete cds |
| 7768 | 20827 | 34318 | 0.68 | 9.4E-02 | L78833.1 | NT | Human BRCA1, Rho7 and val genes, complete cds, and p135 gene, partial cds |
| 8789 | 21878 | | 2.5 | 9.4E-02 | Z46883.1 | NT | Achete/border op. cysD, cobQ, lysS, rubA, rubB, estB, oxylR, ppk, migA, ORF2 and ORF3 genes |
| 11174 | 20827 | 34318 | 1.9 | 9.4E-02 | L78833.1 | NT | Human BRCA1, Rho7 and val genes, complete cds, and p135 gene, partial cds |
| 12214 | 26011 | | 7.72 | 9.4E-02 | U31816.1 | NT | Rattus norvegicus calcium channel alpha-1C subunit (ROB2) mRNA, partial cds |
| 13198 | 25780 | 31838 | 4.84 | 9.4E-02 | U27699.1 | NT | Human pephBGT-1 betaine-GABA transporter mRNA, complete cds |
| 3084 | 16230 | | 2.37 | 9.3E-02 | 4808280 | NT | Homo sapiens BAI1-associated protein 3 (BAIAP3) mRNA |
| 3094 | 16270 | | 8.03 | 9.3E-02 | 6812825 | NT | Homo sapiens nasopharyngeal epithelium specific protein 1 (NESG1), mRNA |
| 3329 | 16802 | 29521 | 2.17 | 9.3E-02 | BF575511.1 | EST_HUMAN | 602133086F1 NIH_MGC 81 Homo sapiens cDNA clone IMAGE:4288269 5' |
| 4288 | 17413 | 30400 | 3.17 | 9.3E-02 | BE391943.1 | EST_HUMAN | 601286082F1 NIH_MGC 44 Homo sapiens cDNA clone IMAGE:3607653 5' |
| 4288 | 17413 | 30401 | 3.17 | 9.3E-02 | BE391943.1 | EST_HUMAN | 601286082F1 NIH_MGC 44 Homo sapiens cDNA clone IMAGE:3607653 5' |
| 4857 | 17990 | | 1.82 | 9.3E-02 | AV732224.1 | EST_HUMAN | AV732224 HTF Homo sapiens cDNA clone HTFAUA06 5' |
| 5779 | 18971 | | 0.67 | 9.3E-02 | AP001507.1 | NT | Bacillus halodurans genomic DNA, section 1/14 |
| 8442 | 21523 | 35052 | 0.56 | 9.3E-02 | AW568007.1 | EST_HUMAN | EST69 Human Fetal Brain MATCHMAKER cDNA library Homo sapiens cDNA |
| 8324 | 22400 | | 0.6 | 9.3E-02 | AL113178.1 | NT | Borvitis cinerea strain T4 cDNA library under conditions of nitrogen deprivation |
| 8911 | 22951 | 36537 | 2.3 | 9.3E-02 | BE982631.2 | EST_HUMAN | 601656988R1 NIH_MGC 68 Homo sapiens cDNA clone IMAGE:3855981 3' |
| 10384 | 23429 | 37035 | 3.6 | 9.3E-02 | Q15034 | SWISSPROT | HYPOTHETICAL PROTEIN KIAA0032 |
| 10394 | 23429 | 37036 | 3.6 | 9.3E-02 | Q15034 | SWISSPROT | HYPOTHETICAL PROTEIN KIAA0032 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 10526 | 23561 | | 3.96 | 9.3E-02 | AW206117.1 | EST_HUMAN | U1-H-B11-rtx-h-05-0-U1.s1 NCJ_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2723663 3' |
| 12485 | 25633 | | 2.09 | 9.3E-02 | AJ249860.1 | NT | Photobacterium damselae subsp. damselae partial gyrB gene for DNA gyrase B subunit |
| 12905 | 25964 | | 22.03 | 9.3E-02 | AW468850.1 | EST_HUMAN | hd28h12.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2910887 3' |
| 13139 | 28010 | | | | | | Mus musculus major histocompatibility locus class II region: Fas-binding protein Daxx (DAXX) gene, partial cds; BING1 (BING1), tapasin (tapasin), RalGDS-like factor (RLF), KE2 (KE2), BING4 (BING4), beta1, 3-galactosyl transferase (beta1.3-galactosyl tr |
| 238 | 13460 | 26486 | 4.72 | 9.2E-02 | U60315.1 | NT | Molluscum contagiosum virus subtype 1, complete genome |
| 238 | 13460 | 26487 | 4.72 | 9.2E-02 | U60315.1 | NT | Molluscum contagiosum virus subtype 1, complete genome |
| 238 | 13460 | 26488 | 4.72 | 9.2E-02 | U60315.1 | NT | Molluscum contagiosum virus subtype 1, complete genome |
| 2302 | 15434 | | 3.08 | 9.2E-02 | R54156.1 | EST_HUMAN | Y89507.r1 Soares Infant brain TNIB Homo sapiens cDNA clone IMAGE:41618 5' |
| 3247 | 18421 | 29437 | 3.7 | 9.2E-02 | Q28831 | SWISSPROT | MAJOR EPIDIDYMIS-SPECIFIC PROTEIN E4 (EPIDIDYMAL PROTEIN BE-20) |
| 3379 | 16551 | 29564 | 1.01 | 9.2E-02 | AA634364.1 | EST_HUMAN | nt79e01.s1 NCJ_CGAP_Cc3 Homo sapiens cDNA clone IMAGE:928136 3' |
| 3678 | 16839 | | 1.14 | 9.2E-02 | 8755215 | NT | Mus musculus pre T-cell antigen receptor alpha (Ptra), mRNA |
| 4353 | 17496 | | 1.05 | 9.2E-02 | U92048.1 | NT | Human herpesvirus 1 strain KOS-63, latency-associated transcript, promoter region |
| 4425 | 17565 | | 0.88 | 9.2E-02 | BE289722.1 | EST_HUMAN | 600944368F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2860176 5' |
| 4760 | 17695 | 30876 | 3.44 | 9.2E-02 | X98402.1 | NT | G.gallus Mia-CK gene |
| 8198 | 21280 | 34802 | 1.82 | 9.2E-02 | T49920.1 | EST_HUMAN | ya99c08.r1 Stratagene placenta (#937225) Homo sapiens cDNA clone IMAGE:99808 5' similar to similar to gb-x66009 GUANINE NUCLEOTIDE-BINDING PROTEIN G(S), ALPHA SUBUNIT (HUMAN) |
| 8370 | 21451 | 34974 | 2.18 | 9.2E-02 | X85256.1 | NT | H. vulgare xylose isomerase gene |
| 13120 | 28201 | | 1.2 | 9.2E-02 | X77666.1 | NT | Podospira enselina mitochondrion, complete genome |
| 436 | 13236 | 29237 | 2.23 | 9.1E-02 | X77666.1 | NT | O. cuniculus k12 keratin gene |
| 3760 | 16921 | | 0.97 | 9.1E-02 | AW372568.1 | EST_HUMAN | PM2-BT0349-161299-001-602 BT0349 Homo sapiens cDNA |
| 4607 | 17744 | 30723 | 1.78 | 9.1E-02 | AL161554.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 64 |
| 5848 | 18038 | 32346 | 1.23 | 9.1E-02 | AF129758.1 | NT | Homo sapiens MSH55 gene, partial cds; and CLIC1, DDAH, G8b, G8c, G8d, G8e, G8f, BAT5, G5b, CSK2B, BAT4, G4, Apo M, BAT3, BAT2, AIF-1, 1C7, LST-1, LTB, TNF, and LTA genes, complete cds |
| 7469 | 26218 | | 0.61 | 9.1E-02 | AF029308.1 | NT | Homo sapiens chromosome 9 duplication of the T cell receptor beta locus and tyrosinogen gene families |
| 7546 | 20618 | 34094 | 12.21 | 9.1E-02 | AW160658.1 | EST_HUMAN | au74a05.y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2781988 5' |
| 7852 | 20907 | 34411 | 0.95 | 9.1E-02 | AF000061.1 | NT | Aeropyrum pernix genome DNA, section 47 |
| 7887 | 20839 | 34445 | 1.02 | 9.1E-02 | U39073.1 | NT | Mus musculus thymoprotein zeta mRNA, complete cds |
| 9124 | 22203 | 35746 | 0.88 | 9.1E-02 | Y14379.1 | NT | Homo sapiens gamma adducin gene, exon 9 |
| 10642 | 23676 | | 1.46 | 9.1E-02 | T02984.1 | EST_HUMAN | F819F10 Fetal brain, Stratagene Homo sapiens cDNA clone F819F10 3'end |
| 10874 | 23708 | 37316 | 1.02 | 9.1E-02 | S74059.1 | NT | Tg618=Cyl actin [Tripneustes gratilla=sea urchins, embryos, Genomic, 5275 nt] |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 10703 | 23736 | 37341 | 0.8 | 9.1E-02 | Y1187.1 | NT | A.thaliana RH1, TC1, G14587-6, G14587-6, and PRL1 genes |
| 11441 | 24602 | 38170 | 2.13 | 9.1E-02 | AF037625.1 | NT | Rana catesbeiana dihydropyridine receptor mRNA, complete cds |
| 12151 | 25121 | | 7.04 | 9.1E-02 | 9833494 | NT | Bacteriophage Mu, complete genome |
| 12393 | 26124 | | 1.42 | 9.1E-02 | AA178901.1 | EST_HUMAN | z038112.s1 Stralagene muscle 937209 Homo sapiens cDNA clone IMAGE:611763 3' similar to |
| 12473 | 26326 | | 1.32 | 9.1E-02 | AF032698.1 | NT | SW:TRT3_HUMAN P45378 TROPONIN T, FAST SKELETAL MUSCLE, ISOFORM BETA : |
| 12996 | 26954 | | 13.49 | 9.1E-02 | AJ291390.1 | NT | Rattus norvegicus cell cycle protein p55CDC gene, complete cds |
| 13290 | 25769 | | 1.27 | 9.1E-02 | AF226888.1 | NT | Homo sapiens partial MUC3B gene for MUC3B mucin, exons 1-11 |
| | | | | | | | Bombay mori fibroblast heavy chain Fib-H (fib-H) gene, complete cds |
| | | | | | | | FOLATE RECEPTOR ALPHA PRECURSOR (FR-ALPHA) (FOLATE RECEPTOR 1) (FOLATE RECEPTOR, ADULT) (ADULT FOLATE-BINDING PROTEIN) (FBP) (OVARIAN TUMOR-ASSOCIATED ANTIGEN MOV18) (KB CELLS FBP) |
| 763 | 13944 | 26990 | 5.89 | 9.0E-02 | P15328 | SWISSPROT | h09g10.x1 NCL CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3176842 3' similar to contains Alu repetitive element |
| 1664 | 14816 | 27899 | 7.33 | 9.0E-02 | BE220492.1 | EST_HUMAN | IL5-UM0067-240300-050-108 UM0067 Homo sapiens cDNA |
| 2454 | 15662 | 28710 | 1.18 | 9.0E-02 | AW801384.1 | EST_HUMAN | HIV-1 p8c095-06 from USA envelope glycoprotein (env) gene, partial cds |
| 2864 | 15978 | 29088 | 4.89 | 9.0E-02 | AF138522.1 | NT | HIV-1 p8c095-06 from USA envelope glycoprotein (env) gene, partial cds |
| 2894 | 16978 | 29088 | 4.99 | 9.0E-02 | AF138522.1 | NT | Dicotyledon discoidium spore coat structural protein SP65 (cotE) gene, complete cds |
| 3417 | 16586 | 29603 | 1.11 | 9.0E-02 | AF279136.1 | NT | cardiac steroid-binding globulin [Salimiri sclerous=squirrel monkey, liver, mRNA, 1474 nt] |
| 4414 | 17655 | 30541 | 0.6 | 9.0E-02 | S88757.1 | NT | cardiac steroid-binding globulin [Salimiri sclerous=squirrel monkey, liver, mRNA, 1474 nt] |
| 4414 | 17655 | 30541 | 0.6 | 9.0E-02 | S88757.1 | NT | cardiac steroid-binding globulin [Salimiri sclerous=squirrel monkey, liver, mRNA, 1474 nt] |
| 4780 | 17925 | 30913 | 2.03 | 9.0E-02 | X85740.2 | NT | Plasmodium falciparum P-type ATPase 3 gene |
| 6118 | 19298 | 32634 | 7.2 | 9.0E-02 | W58037.1 | EST_HUMAN | PIR:S52171 S52171 small G protein - human ; |
| 6860 | 20012 | | 0.93 | 9.0E-02 | BF062651.1 | EST_HUMAN | 7h83d03.x1 NCL CGAP_Go16 Homo sapiens cDNA clone IMAGE:3320845 3' similar to contains Alu repetitive element |
| 12819 | 25546 | | 1.82 | 9.0E-02 | AF022236.1 | NT | Escherichia coli strain E2348/69 pathogenicity island, rOrf1 (rOrf1), rOrf2 (rOrf2), EscR (escR), EscS (escS), EscT (escT), EscU (escU), EscD (escD), EscC (escC), EscJ (escJ), SepZ (sepZ), EscV (escV), EscN (escN), SepQ (sepQ), Tir (tir), OrfU (orfU), > |
| 1489 | 14623 | 27706 | 1.25 | 8.9E-02 | BF071593.1 | EST_HUMAN | 602129030F2 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4285951 5' |
| 1489 | 14623 | 27707 | 1.25 | 8.9E-02 | BF071593.1 | EST_HUMAN | 602129030F2 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4285951 5' |
| 2460 | 15597 | 28714 | 1.94 | 8.9E-02 | BE163572.1 | EST_HUMAN | PMD-HT0339-251189-003-001 HT0339 Homo sapiens cDNA |
| 4316 | 17489 | | 1.69 | 8.9E-02 | AF268055.1 | NT | Atrichum angustatum AtranF102 protein (AtranF102) gene, partial cds |
| 5972 | 19158 | 32474 | 2.7 | 8.9E-02 | AW492122.1 | EST_HUMAN | U1-H-B13-alo-f-08-0-U1.s1 NCL CGAP_Sub5 Homo sapiens cDNA clone IMAGE:3068294 3' |
| 5972 | 19158 | 32475 | 2.7 | 8.9E-02 | AW492122.1 | EST_HUMAN | U1-H-B13-alo-f-08-0-U1.s1 NCL CGAP_Sub5 Homo sapiens cDNA clone IMAGE:3068294 3' |
| 5987 | 19172 | 32494 | 3.34 | 8.9E-02 | 11433478 | NT | Homo sapiens similar to endoglycan (H. septans) (LOC33107), mRNA |

Page 126 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Description |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 7343 | 20423 | 33880 | 1.6 | 8.9E-02 | P47259 | SWISSPROT | FOLD BIFUNCTIONAL PROTEIN [INCLUDES: METHYLENETETRAHYDROFOLATE DEHYDROGENASE; METHENYL-TETRAHYDROFOLATE CYCLOHYDROLASE] |
| 7731 | 20763 | | 1.77 | 8.8E-02 | Z78021.1 | NT | H. sapiens flow-sorted chromosome 8 HindIII fragment, SC8pA20F8 |
| 8240 | 21322 | 34839 | 1.19 | 8.9E-02 | P29475 | SWISSPROT | NITRIC-OXIDE SYNTHASE, BRAIN (NOS, TYPE I) (NEURONAL NOS) (N-NOS) (NNOS) (CONSTITUTIVE NOS) (NC-NOS) (BNOS) |
| 8323 | 21405 | 34932 | 0.78 | 8.9E-02 | BF701685.1 | EST_HUMAN | 60212911F2 NIH_MGC 68 Homo sapiens cDNA clone IMAGE:4285927 5' |
| 8323 | 21405 | 34933 | 0.78 | 8.9E-02 | BF701685.1 | EST_HUMAN | 60212911F2 NIH_MGC 68 Homo sapiens cDNA clone IMAGE:4285927 5' |
| 8797 | 21876 | 36416 | 5.85 | 8.9E-02 | AA309319.1 | EST_HUMAN | EST1180187 Liver, hepatocellular carcinoma Homo sapiens cDNA 5' and |
| 9819 | 22868 | 36439 | 0.84 | 8.9E-02 | A1285827.1 | EST_HUMAN | qu85c05.x1 NCI_CGAP_Lym6 Homo sapiens cDNA clone IMAGE:1988680 3' similar to contains MER10.b1 |
| 9819 | 22868 | 36440 | 0.84 | 8.9E-02 | A1285827.1 | EST_HUMAN | qu85c05.x1 NCI_CGAP_Lym6 Homo sapiens cDNA clone IMAGE:1988680 3' similar to contains MER10.b1 |
| 9934 | 22873 | 36565 | 0.63 | 8.9E-02 | AA333366.1 | EST_HUMAN | qu55c06.x1 NCI_CGAP_Lym6 Homo sapiens cDNA clone IMAGE:1988680 3' similar to contains MER10.b1 |
| 12213 | 25962 | | 1.8 | 8.9E-02 | P18624 | SWISSPROT | EST144434 Fetal brain 1 Homo sapiens cDNA 5' and |
| 12366 | 25962 | | 3.82 | 8.9E-02 | BF698918.1 | EST_HUMAN | MYOSIN-2 ISOFORM |
| 12537 | 25366 | | 2.75 | 8.9E-02 | U29895.1 | NT | 602128682F1 NIH_MGC 68 Homo sapiens cDNA clone IMAGE:4286180 5' |
| 12584 | 25393 | | 2 | 8.9E-02 | U29895.1 | NT | Mus musculus hippocampus abundant gene transcript 1 (Hiat1), mRNA |
| 12827 | 26199 | | 1.16 | 8.9E-02 | U40483.1 | NT | Human 4-hydroxyphenylpyruvate-dioxygenase gene, complete cds |
| 12880 | 26133 | | 1.54 | 8.9E-02 | AE001514.1 | NT | Ceratitis capitata mariner transposon transposase gene, complete cds |
| 1404 | 14558 | 27632 | 0.96 | 8.9E-02 | Q27474 | SWISSPROT | Helicobacter pylori, strain J99 section 76 of 132 of the complete genome |
| 4012 | 17169 | 30177 | 1.07 | 8.9E-02 | AA298128.1 | EST_HUMAN | PROBABLE DNA LIGASE (POLYDEOXYRIBONUCLEOTIDE SYNTHASE [ATP]) |
| 4145 | 17297 | | 5.23 | 8.9E-02 | O00268 | SWISSPROT | EST11606 Uterus Homo sapiens cDNA 5' and |
| 4418 | 17539 | | 0.75 | 8.9E-02 | 4580423 | NT | TRANSCRIPTION INITIATION FACTOR TH1D 135 KDA SUBUNIT (TAFII-135) (TAFII-130) (TAFII130) |
| 7716 | 20780 | | 0.71 | 8.9E-02 | D17520.1 | NT | Homo sapiens paired box gene 6 (enrichia, keratitis) (PAX6), isoform b, mRNA |
| 9189 | 22296 | 35807 | 2.07 | 8.9E-02 | AA151872.1 | EST_HUMAN | Sheep mRNA for angiotensinogen, complete cds |
| 11380 | 24441 | 38089 | 2.79 | 8.9E-02 | BE264453.1 | EST_HUMAN | z188a05.s1 Stragene colon (#837204) Homo sapiens cDNA clone IMAGE:566288 3' |
| 11380 | 24441 | 38100 | 2.79 | 8.9E-02 | BE264453.1 | EST_HUMAN | 601191770F1 NIH_MGC 7 Homo sapiens cDNA clone IMAGE:3935648 5' |
| 11941 | 24597 | 38273 | 5.26 | 8.9E-02 | AL040126.1 | EST_HUMAN | 601191770F1 NIH_MGC 7 Homo sapiens cDNA clone IMAGE:3935648 5' |
| 12443 | 25314 | 32090 | 1.19 | 8.9E-02 | Z71581.1 | NT | DKFZp434D1313.1 494 (cyninym: hies3) Homo sapiens cDNA clone DKFZp434D1313 5' |
| 3785 | 18946 | 29863 | 4.17 | 8.7E-02 | U82695.2 | NT | S.cerevisiae chromosome XIV reading frame ORF YNL285w |
| | | | | | | | (Homo sapiens zinc finger protein 92 (ZFP92), expressed-Xq28STS protein (XQ28ORF), and biglycan (BGN) genes, complete cds; and plasma membrane calcium ATPase isoform 3 (PMCA3) gene, partial cds |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 3785 | 16946 | 29954 | 4.17 | 8.7E-02 | U82895.2 | NT | Homo sapiens zinc finger protein 92 (ZFP92), expressed-Xq28STS protein (XQ28ORF), and biglycan (BGN) genes, complete cds; and plasma membrane calcium ATPase isoform 3 (PMCA3) gene, partial cds |
| 4829 | 17962 | 30950 | 1.4 | 8.7E-02 | AF178636.1 | NT | Mus musculus JNK interacting protein-3a (Jip3) mRNA, complete cds |
| 5211 | 18332 | | 1.07 | 8.7E-02 | AE000895.1 | NT | Methanobacterium thermoautotrophicum from bases 1176181 to 1189406 (section 101 of 148) of the complete genome |
| 5429 | 18629 | 31605 | 5.49 | 8.7E-02 | AA286875.1 | EST_HUMAN | z555g08.s1 NCI_OGAP_GCB1 Homo sapiens cDNA clone IMAGE:701438 3' |
| 5429 | 18629 | 31608 | 5.49 | 8.7E-02 | AA286875.1 | EST_HUMAN | z555g08.s1 NCI_OGAP_GCB1 Homo sapiens cDNA clone IMAGE:701438 3' |
| 6984 | 20212 | 33642 | 0.63 | 8.7E-02 | AJ271885.2 | NT | Mus musculus partial Kcnq1 gene for potassium channel protein, exons 10-14 |
| 6984 | 20212 | 33643 | 0.63 | 8.7E-02 | AJ271885.2 | NT | Mus musculus partial Kcnq1 gene for potassium channel protein, exons 10-14 |
| 7168 | 20053 | 33463 | 0.67 | 8.7E-02 | AF281342.1 | NT | Oncorhynchus mykiss TAT-binding protein 1 mRNA, partial cds |
| 8046 | 21129 | | 0.56 | 8.7E-02 | AA284532.1 | EST_HUMAN | z120e03.e1 Soares ovary tumor N18-HOT Homo sapiens cDNA clone IMAGE:713692 3' |
| 8713 | 21793 | 35329 | 0.66 | 8.7E-02 | AE004787.1 | NT | Pseudomonas aeruginosa PA01, section 348 of 529 of the complete genome |
| 8713 | 21793 | 35330 | 0.66 | 8.7E-02 | AE004787.1 | NT | Pseudomonas aeruginosa PA01, section 348 of 529 of the complete genome |
| 10951 | 24033 | | 2.01 | 8.7E-02 | LA4758.1 | NT | Oryctolagus cuniculus cytochrome P-450 (CYP4A4) gene, 5' end |
| 11591 | 24844 | 38328 | 1.48 | 8.7E-02 | AJ007763.1 | NT | Gluconobacter oxydans RNA-III and RNA-Ala genes |
| 12431 | 26306 | | 2.2 | 8.7E-02 | X17116.1 | NT | Human DNA for immunoglobulin alpha heavy chain from a case of alpha heavy chain disease |
| 12848 | 25432 | | 2.65 | 8.7E-02 | 8870057 | NT | Mus musculus nidogen 2 (NID2), mRNA |
| 13033 | 26880 | | 2.05 | 8.7E-02 | X85292.1 | NT | O. gallus mRNA for vigilin |
| 1281 | 14437 | 27606 | 7.73 | 8.6E-02 | AJ271738.1 | NT | Homo sapiens Xq pseudobulbosomal region; segment 2/2 |
| 2317 | 15449 | 28591 | 2.2 | 8.6E-02 | BE408887.1 | EST_HUMAN | 601304018F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3688843 5' |
| 3257 | 16431 | 29446 | 2.35 | 8.6E-02 | LO5468.1 | NT | Trichomonas vaginalis beta-tubulin (btub1) gene, complete cds |
| 3734 | 16895 | | 3.69 | 8.6E-02 | AF153392.1 | NT | Dicystosellum discoidium adenyl cyclase (acrA) gene, complete cds |
| 3880 | 17039 | | 0.6 | 8.6E-02 | U29187.1 | NT | Mus musculus long incubation prion protein (Prnpb) and prion-like protein (Prnd) genes, complete cds |
| 4609 | 17746 | 30725 | 0.66 | 8.6E-02 | U88179.1 | NT | Oryctolagus cuniculus galectin-3 gene, untranslated exon and 5' flanking region |
| 5330 | 18443 | | 1.02 | 8.6E-02 | AB011163.1 | NT | Homo sapiens mRNA for KIAA0591 protein, partial cds |
| 6219 | 18394 | 32743 | 4.74 | 8.6E-02 | Y10828.1 | NT | Homo sapiens LCN1b gene |
| 6504 | 19670 | 33035 | 1.29 | 8.6E-02 | J00440.1 | NT | Mouse germline IgM chain gene, D region; D-q52, mu switch region (part a) |
| 6504 | 19670 | 33036 | 1.29 | 8.6E-02 | J00440.1 | NT | Mouse germline IgM chain gene, D region; D-q52, mu switch region (part a) |
| 7755 | 20814 | 34306 | 0.89 | 8.6E-02 | P14816 | SWISSPROT | INSULIN RECEPTOR-RELATED PROTEIN PRECURSOR (IRR) (IR-RELATED RECEPTOR) |
| 8115 | 21197 | 34716 | 1.08 | 8.6E-02 | 5730068 | NT | Homo sapiens Snf2-related CBP activator protein (SRCAP) mRNA |
| 8115 | 21197 | 34717 | 1.09 | 8.6E-02 | 5730068 | NT | Homo sapiens Snf2-related CBP activator protein (SRCAP) mRNA |
| 8281 | 21343 | 34860 | 0.56 | 8.6E-02 | 11427428 | NT | Homo sapiens hypothetical protein FLJ11006 (FLJ11006), mRNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 8324 | 21408 | | 0.76 | 8.6E-02 | U60188.1 | NT | Dicystosellum discoideum proteasome subunit C2 homolog PrtC (prtC) gene, complete cds |
| 8938 | 22677 | 36568 | 1.24 | 8.6E-02 | AF11170.3 | NT | Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene |
| 8975 | 23014 | | 1.4 | 8.6E-02 | AW662163.1 | EST_HUMAN | h20c08.x1 NCL_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2972846 3' |
| 10358 | 23391 | 37001 | 1.07 | 8.6E-02 | AF026504.1 | NT | Rattus norvegicus SPA-1 like protein p1294 mRNA, complete cds |
| 11188 | 24257 | 37892 | 1.82 | 8.6E-02 | AF206551.1 | NT | Lacerta media cytochrome c oxidase subunit 1 gene, partial cds; mitochondrial gene for mitochondrial product |
| 11188 | 24257 | 37893 | 1.82 | 8.6E-02 | AF206551.1 | NT | Lacerta media cytochrome c oxidase subunit 1 gene, partial cds; mitochondrial gene for mitochondrial product |
| 11827 | 24863 | 38259 | 3.02 | 8.6E-02 | BF305606.1 | EST_HUMAN | 601893437F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4139216 5' |
| 11527 | 24983 | 38260 | 3.02 | 8.6E-02 | BF305606.1 | EST_HUMAN | 601893437F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4139216 5' |
| 11724 | 23910 | 37534 | 7.67 | 8.6E-02 | AE001073.1 | NT | Archaeoglobus fulgidus section 34 of 172 of the complete genome |
| 11875 | 24863 | 38559 | 2.29 | 8.6E-02 | AF283680.1 | NT | Bacillus stearothermophilus BarFI methylase (Fim) and BarFI restriction endonuclease (FIR) genes, complete cds |
| 2470 | 15997 | 28722 | 2.58 | 8.5E-02 | AE000862.1 | NT | Helicobacter pylori 26695 section 130 of 134 of the complete genome |
| 5292 | 18410 | | 0.66 | 8.5E-02 | N76915.1 | EST_HUMAN | yy46h08.r1 Soares fetal liver spleen 1NFS Homo sapiens cDNA clone IMAGE:245823 5' |
| 5786 | 18978 | 32283 | 0.73 | 8.6E-02 | AA685491.1 | EST_HUMAN | cc83b07.s1 NCL_CGAP_K46 Homo sapiens cDNA clone IMAGE:1692917 3' similar to gb:K01144 HLA CLASS II HISTOCOMPATIBILITY ANTIGEN, GAMMA CHAIN PRECURSOR (HUMAN); |
| 5828 | 19016 | | 1.99 | 8.5E-02 | P08089 | SWISSPROT | M PROTEIN, SEROTYPE 6 PRECURSOR |
| 6136 | 19314 | 32653 | 6.61 | 8.6E-02 | AF233885.1 | NT | Mus musculus phospholipase C-like protein mRNA, partial cds |
| 8805 | 21884 | 35424 | 1.98 | 8.5E-02 | 6754779 | NT | Mus musculus myosin XV (Myo15), mRNA |
| 10041 | 23079 | 36680 | 3.27 | 8.5E-02 | BE833054.1 | EST_HUMAN | RC4-OT0037-200700-014-eds OT0037 Homo sapiens cDNA |
| 10041 | 23079 | 36681 | 3.27 | 8.5E-02 | BE833054.1 | EST_HUMAN | RC4-OT0037-200700-014-eds OT0037 Homo sapiens cDNA |
| 10572 | 23607 | 37212 | 0.64 | 8.5E-02 | X76731.1 | NT | V. armodyes gene for armodyoxin C |
| 10702 | 23735 | 37340 | 0.82 | 8.5E-02 | 11418108 | NT | Homo sapiens chromosome 22 open reading frame 5 (C22ORF5), mRNA |
| 11424 | 24485 | | 8.03 | 8.6E-02 | AF165510.1 | NT | Homo sapiens heparanase precursor, mRNA, complete cds |
| 11446 | 24507 | 38173 | 3.82 | 8.5E-02 | AB001592.1 | NT | Streptococcus mutans gene for glucose-1-phosphate uridylyltransferase, complete cds |
| 12873 | 25888 | | 2.76 | 8.5E-02 | AJ005588.1 | NT | Antirrhinum majus mRNA for MYB-related transcription factor |
| 13070 | 25700 | | 2.44 | 8.5E-02 | AA362894.1 | NT | EST72738 Ovary II Homo sapiens cDNA 5' end |
| 2732 | 16070 | 28961 | 4.05 | 8.4E-02 | W69330.1 | EST_HUMAN | zd4461.1.1 Soares fetal heart NbHH19W Homo sapiens cDNA clone IMAGE:343532 6' |
| 5427 | 18927 | 31903 | 9.84 | 8.4E-02 | BE287163.1 | EST_HUMAN | 601190436F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3634363 5' |
| 6828 | 18981 | 33368 | 1.46 | 8.4E-02 | AK024456.1 | NT | Homo sapiens mRNA for FLJ00050 protein, partial cds |
| 8218 | 21300 | 34821 | 6.95 | 8.4E-02 | BE095074.1 | EST_HUMAN | OM3-B70790-260400-162-eds B70790 Homo sapiens cDNA |
| 9043 | 22122 | 35864 | 1.15 | 8.4E-02 | AF219880.1 | NT | Homo sapiens atrial natriuretic precursor (ATRn) gene, exon 2 |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 10571 | 23608 | 37211 | 1.84 | 8.4E-02 | A1735184.1 | EST_HUMAN | aa88g10.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2335842 3' similar to TR:O8B312 |
| 10631 | 23655 | | 0.48 | 8.4E-02 | AV730682.1 | EST_HUMAN | O8B312 GOB-4 ; |
| 12361 | 26264 | 32114 | 1.87 | 8.4E-02 | R79408.1 | EST_HUMAN | AV730682 HTF Homo sapiens cDNA clone HTFBMG04 6' |
| 3682 | 18945 | 29853 | 7.77 | 8.3E-02 | P76334 | SWISSPROT | y63h112.1 Soares placenta Nib2HP Homo sapiens cDNA clone IMAGE:146895 5' |
| 3709 | 18870 | 29873 | 0.75 | 8.3E-02 | A1439797.1 | EST_HUMAN | HYPOTHELICAL LIPOPROTEIN MG309 HOMOLOG PRECURSOR |
| 3709 | 18870 | 29874 | 0.75 | 8.3E-02 | A1439797.1 | EST_HUMAN | th82g08.x1 Soares_NHHMPU_ST Homo sapiens cDNA clone IMAGE:2125210 3' |
| 4417 | 17568 | | 0.68 | 8.3E-02 | M54864.1 | NT | th82g08.x1 Soares_NHHMPU_ST Homo sapiens cDNA clone IMAGE:2125210 3' |
| 6389 | 19558 | 32917 | 0.74 | 8.3E-02 | A1942838.1 | EST_HUMAN | C.thummi A2b region open reading frame, complete cds |
| 8498 | 19662 | 33026 | 2.87 | 8.3E-02 | AF032683.1 | NT | wa78f11.x1 NCL CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2461581 3' |
| 8169 | 21251 | 34771 | 3.08 | 8.3E-02 | AF195787.1 | NT | Homo sapiens probocadherin 43 gene, exon 1 |
| 8202 | 21284 | | 1.05 | 8.3E-02 | AA895285.1 | EST_HUMAN | Rattus norvegicus dystrophin-related protein 2 A-form splice variant (Dp2) mRNA, complete cds |
| 8495 | 21576 | | 1.31 | 8.3E-02 | AA987873.1 | EST_HUMAN | og88g08.e1 NCL CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1455422 3' similar to contains L1.t1 L1 L1 |
| 9738 | 22803 | 36377 | 1.09 | 8.3E-02 | AW563503.1 | EST_HUMAN | repetitive element ; |
| 9751 | 22889 | | 2.02 | 8.3E-02 | AL161686.2 | NT | cc81f10.s1 NCL CGAP_Kid6 Homo sapiens cDNA clone IMAGE:1692779 3' |
| 10549 | 23884 | | 0.72 | 8.3E-02 | AF020409.1 | NT | la08h10.x1 Human Pancreatic Islets Homo sapiens cDNA 3' similar to TR:Q15332 Q15332 GAMMA |
| 12448 | 26128 | | 1.81 | 8.3E-02 | BE956458.1 | EST_HUMAN | SUBUNIT OF SODIUM POTASSIUM ATPASE LIKE ; |
| 1410 | 14584 | | 9.13 | 8.2E-02 | Y08170.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 91 |
| 1525 | 14678 | 27769 | 2.03 | 8.2E-02 | AF167077.2 | NT | Dicystallum discoidium DocA (docA) mRNA, complete cds |
| 3141 | 16317 | | 1.97 | 8.2E-02 | AL163208.2 | NT | G01644770F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:3828883 5' |
| 3804 | 17063 | | 1.35 | 8.2E-02 | AL161498.2 | NT | Gallus gallus mRNA for OBCAM protein gamma isoform |
| 4114 | 17268 | 30268 | 0.99 | 8.2E-02 | AL163208.2 | NT | Canis familiaris glutamate transporter (EAAT4) mRNA, complete cds |
| 4309 | 17542 | 30523 | 6.58 | 8.2E-02 | P48960 | SWISSPROT | Homo sapiens chromosome 21 segment HS21C008 |
| 4399 | 17542 | 30524 | 6.58 | 8.2E-02 | P48960 | SWISSPROT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 10 |
| 4399 | 17542 | 30525 | 6.58 | 8.2E-02 | P48960 | SWISSPROT | Homo sapiens chromosome 21 segment HS21C008 |
| 5192 | 18314 | 31282 | 3.43 | 8.2E-02 | U76009.1 | NT | LEUCOCYTE ANTIGEN CD97 PRECURSOR |
| 5450 | 18950 | 31928 | 1.46 | 8.2E-02 | BE897030.1 | EST_HUMAN | LEUCOCYTE ANTIGEN CD97 PRECURSOR |
| 7165 | 20298 | 33741 | 3.16 | 8.2E-02 | AF309555.1 | EST_HUMAN | Mus musculus zinc transporter (Znt-3) gene, complete cds |
| 7910 | 20962 | | 0.58 | 8.2E-02 | AF743341.1 | EST_HUMAN | G01439578F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3924523 5' |
| 8905 | 21984 | | 0.59 | 8.2E-02 | U29397.1 | NT | Bos taurus connective tissue growth factor precursor (CTGF) gene, complete cds |
| 8971 | 22050 | 35593 | 3.24 | 8.2E-02 | AW876126.1 | EST_HUMAN | AV743341 CB Homo sapiens cDNA clone OBLANF07 5' |
| 8799 | 22839 | 38416 | 4.88 | 8.2E-02 | X04197.1 | NT | Rattus norvegicus plasma membrane Ca2+ ATPase isoform 3 (PMCA3) gene, 5' flanking region |
| | | | | | | | RC2-PT0004-031289-011-d06 PT0004 Homo sapiens cDNA |
| | | | | | | | Beet malarial yellow vein virus RNA-2 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit: Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|---------------------------|-------------------------------|--|
| 6965 | 23004 | 36599 | 2.27 | 8.2E-02 | BE264318.1 | EST_HUMAN | 601115055F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3355598 5' |
| 12454 | 23318 | 32094 | 3.93 | 8.2E-02 | AE002246.2 | NT | Chlamydomonas reinhardtii AR39, section 73 of 84 of the complete genome |
| 12688 | 26458 | 32021 | 1.43 | 8.2E-02 | AW802195.1 | EST_HUMAN | QV4-CT0361-021299-049-b01 CT0361 Homo sapiens cDNA |
| 12609 | 26875 | | 2.58 | 8.2E-02 | AF275368.1 | NT | Mus musculus epidermal growth factor receptor (Egfr) gene, exons 5 through 28, and complete cds, alternatively spliced |
| 1524 | 14877 | 27758 | 0.96 | 8.1E-02 | AB017138.1 | NT | Pseudomonas putida malonate decarboxylase gene cluster (mdcA, mdcB, mdcC, mdcD, mdcE, mdcG, mdcH, mdcI, and mdcM genes), complete cds |
| 8873 | 18083 | 32371 | 1.03 | 8.1E-02 | AE004006.1 | NT | Xyella fastidiosa, section 162 of 229 of the complete genome |
| 6509 | 19874 | 33043 | 0.89 | 8.1E-02 | T11532.1 | EST_HUMAN | A1484F Heart Homo sapiens cDNA clone A1484 |
| 7347 | 20427 | | 0.83 | 8.1E-02 | AL163279.2 | NT | Homo sapiens chromosome 21 segment HS21C079 |
| 7768 | 20816 | | 0.99 | 8.1E-02 | AB92881.1 | EST_HUMAN | wc8608.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2338503 3' |
| 8535 | 21618 | 35161 | 0.66 | 8.1E-02 | 11426974 | NT | Homo sapiens hypothetical protein FLJ10060 (FLJ10060), mRNA |
| 8536 | 21619 | 35162 | 0.56 | 8.1E-02 | 11426974 | NT | Homo sapiens hypothetical protein FLJ10060 (FLJ10060), mRNA |
| 10116 | 23164 | | 1.83 | 8.1E-02 | AY005160.1 | NT | Homo sapiens extracellular glycoprotein lactin precursor, gene, complete cds |
| 10885 | 23719 | | 0.7 | 8.1E-02 | AW289778.1 | EST_HUMAN | xx45b11.x1 Scarsa_NFL_I_GBC_S1 Homo sapiens cDNA clone IMAGE:2816061 3' |
| 10868 | 23891 | 37511 | 0.47 | 8.1E-02 | AW460487.1 | EST_HUMAN | UI-H-B13-eko-g-01-O-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2735040 3' |
| 10958 | 23891 | 37512 | 0.47 | 8.1E-02 | AW450487.1 | EST_HUMAN | UI-H-B13-eko-g-01-O-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2735040 3' |
| 11780 | 24780 | 38477 | 1.99 | 8.1E-02 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 6 | 19003 | 26248 | 7.61 | 8.0E-02 | AW954663.1 | EST_HUMAN | EST366723 MAGE resequences, MAGEC Homo sapiens cDNA |
| 959 | 14132 | 27191 | 0.65 | 8.0E-02 | U60315.1 | NT | Molluscum contagiosum virus subtype 1, complete genome |
| 1733 | 16048 | 27674 | 11.83 | 8.0E-02 | D26535.1 | NT | Human gene for dihydrolipoamide succinyltransferase, complete cds (exon 1-15) |
| 1733 | 16048 | 27675 | 11.83 | 8.0E-02 | D26535.1 | NT | Human gene for dihydrolipoamide succinyltransferase, complete cds (exon 1-15) |
| 1952 | 15085 | 28196 | 4.4 | 8.0E-02 | BE067219.1 | EST_HUMAN | PM3-B10347-170200-001-b08 BT0347 Homo sapiens cDNA |
| 2447 | 15575 | 28704 | 0.93 | 8.0E-02 | D90915.1 | NT | Synechocystis sp. PCC6803 complete genome, 17127, 2137269-2267259 |
| 2447 | 15575 | 28705 | 0.93 | 8.0E-02 | D90915.1 | NT | Synechocystis sp. PCC6803 complete genome, 17127, 2137269-2267259 |
| 2541 | 15668 | 27338 | 3.21 | 8.0E-02 | BF246744.1 | EST_HUMAN | 601855548F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4075618 5' |
| 2881 | 14280 | | 1.55 | 8.0E-02 | M23449.1 | NT | Dicystosium discoidum cyclic nucleotide phosphodiesterase gene, complete cds |
| 2955 | 16141 | 29159 | 1.05 | 8.0E-02 | AL445067.1 | NT | Thermoplasma acidophilum complete genome, segment 5/5 |
| 3919 | 17078 | 30075 | 0.93 | 8.0E-02 | AW966118.1 | EST_HUMAN | EST378191 MAGE resequences, MAGI Homo sapiens cDNA |
| 4182 | 17332 | | 0.74 | 8.0E-02 | 4503034 | NT | Homo sapiens cAMP responsive element binding protein-like 2 (CREBL2) mRNA |
| 4935 | 18065 | | 6.87 | 8.0E-02 | X72794.1 | NT | Mus musculus gene for gelatinase B |
| 5038 | 18166 | 31142 | 0.82 | 8.0E-02 | M28071.1 | NT | Herpesvirus salmivirus transformator-associated protein (STP), and dihydrofolate reductase (DHFR) gene, complete cds, and small nuclear RNAs (sRNAs) |
| 6012 | 19198 | 32513 | 3.58 | 8.0E-02 | AF275948.1 | NT | Homo sapiens ABCA1 (ABCA1) gene, complete cds |

Page 131 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 7330 | 19186 | 32513 | 1.61 | 8.0E-02 | AF275948.1 | NT | Homo sapiens ABCA1 (ABCA1) gene, complete cds |
| 8318 | 21401 | 34928 | 2.41 | 8.0E-02 | AL114993.1 | NT | Bdylis chireia strain T4 cDNA library under conditions of nitrogen deprivation |
| 8369 | 22644 | 36213 | 1.38 | 8.0E-02 | X74208.1 | NT | H. sapiens AGT gene, intron 4 |
| 9589 | 22844 | 36214 | 1.38 | 8.0E-02 | X74208.1 | NT | H. sapiens AGT gene, intron 4 |
| 10361 | 23356 | | 0.49 | 8.0E-02 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 11032 | 24111 | 37747 | 2.64 | 8.0E-02 | AF217798.1 | NT | Homo sapiens SCG10 like-protein, helicase-like protein NHL, M68, and ADP-ribosylation factor related protein 1 (ARFRP1) gene, complete cds |
| 12127 | 25107 | 38811 | 1.69 | 8.0E-02 | 4507608 | NT | Homo sapiens tumor necrosis factor (ligand) superfamily, member 9 (TNFSF9) mRNA |
| 12486 | 25337 | 32061 | 3.54 | 8.0E-02 | AJ005376.1 | NT | Drosophila oreana hunchback region |
| 13134 | 17332 | | 1.85 | 8.0E-02 | 4503034 | NT | Homo sapiens cAMP responsive element binding protein-like 2 (CREBL2) mRNA |
| 2243 | 15376 | 28504 | 3.37 | 7.8E-02 | BE250008.1 | EST_HUMAN | 600943191F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2959510 5' |
| 3043 | 18218 | 28240 | 12.53 | 7.9E-02 | AI582020.1 | EST_HUMAN | ar88-c08.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2173648 3' similar to gb:Z26876 |
| 3953 | 17111 | 30110 | 4.47 | 7.9E-02 | 6681044 | NT | 60S RIBOSOMAL PROTEIN L38 (HUMAN); |
| 3953 | 17111 | 30111 | 4.47 | 7.9E-02 | 6681044 | NT | Mus musculus colony stimulating factor 1 receptor (Csf1r), mRNA |
| 4832 | 18062 | | 1.18 | 7.9E-02 | AB008019.1 | NT | Arabidopsis thaliana RXW24L mRNA, partial cds |
| 6836 | 19889 | | 1.14 | 7.9E-02 | BF369016.1 | EST_HUMAN | RC3-GN0042-310800-024-011 GN0042 Homo sapiens cDNA |
| 8221 | 21303 | 34924 | 3.1 | 7.9E-02 | U27832.1 | NT | Saccharomyces cerevisiae suppressor of MIF2 Smt4p (SMT4) gene, complete cds |
| 10234 | 23269 | 36859 | 5.6 | 7.9E-02 | AI081644.1 | EST_HUMAN | cu33b05.st NCI_CGAP_Br2 Homo sapiens cDNA clone IMAGE:1632465 3' similar to WP.C37A2.2 |
| 10234 | 23269 | 36860 | 5.6 | 7.9E-02 | AI081644.1 | EST_HUMAN | CE08811; |
| 13008 | 25604 | | 1.27 | 7.9E-02 | AI781639.1 | EST_HUMAN | CE08811; |
| 1237 | 14396 | 27457 | 1.49 | 7.8E-02 | AI783276.1 | EST_HUMAN | wg66h01.x1 Soares NSF_F8 gW_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2370097 3' |
| 1237 | 14396 | 27458 | 1.49 | 7.8E-02 | AI783276.1 | EST_HUMAN | od59d02.y6 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1670467 5' similar to contains L1.13 L1 |
| 4916 | 18045 | 31035 | 0.6 | 7.8E-02 | BE836331.1 | EST_HUMAN | repetitive element; |
| 5188 | 17003 | | 2.97 | 7.8E-02 | BE250048.1 | EST_HUMAN | od59d02.y6 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1670467 5' similar to contains L1.13 L1 |
| | | | | | | | repetitive element; |
| | | | | | | | PM3-FN0058-140700-005-f09 FN0058 Homo sapiens cDNA |
| | | | | | | | 600943055F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:2858683 5' |
| 7223 | 20087 | 33504 | 1.1 | 7.8E-02 | U82695.2 | NT | Homo sapiens zinc finger protein 92 (ZFP92), expressed-Xq28ST9 protein (XQ28ORF), and biglycan (BGN) genes, complete cds; and plasma membrane calcium ATPase isoform 3 (PMCA3) gene, partial cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 7223 | 20087 | 33505 | 1.1 | 7.8E-02 | U82865.2 | NT | Homo sapiens zinc finger protein 92 (ZFP92), expressed-Xq28STS protein (XQ28ORF), and biglycan (BGN) genes, complete cds; and plasma membrane calcium ATPase isoform 3 (PMCA3) gene, partial cds |
| 8985 | 22064 | 35604 | 0.93 | 7.8E-02 | BE897947.1 | EST_HUMAN | 601440439F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3925449 5' |
| 8081 | 22160 | 35702 | 0.69 | 7.8E-02 | X78344.1 | NT | S. cerevisiae CAT8 gene |
| 9263 | 22330 | 35877 | 0.8 | 7.8E-02 | AF233437.1 | NT | Homo sapiens FYVE domain-containing dual specificity protein phosphatase FYVE-DSP1b mRNA, complete cds |
| 9253 | 22330 | 35878 | 0.8 | 7.8E-02 | AF233437.1 | NT | Homo sapiens FYVE domain-containing dual specificity protein phosphatase FYVE-DSP1b mRNA, complete cds |
| 9561 | 22703 | 36259 | 0.9 | 7.8E-02 | AA468354.1 | EST_HUMAN | nc88b06.1 NCI_CGAP_P1 Homo sapiens cDNA clone IMAGE:771731 |
| 10006 | 23044 | 36637 | 0.58 | 7.8E-02 | Z89124.1 | NT | Bacillus subtilis complete genome (section 21 of 21); from 3998281 to 4214814 |
| 10901 | 23955 | 37616 | 2.19 | 7.8E-02 | U32323.1 | NT | Human interleukin-11 receptor alpha chain gene, complete cds |
| 12910 | 25602 | 31973 | 1.35 | 7.8E-02 | U72847.1 | NT | Homo sapiens enovoplakin (EVPL) gene, exons 15 through 18 |
| 1431 | 16038 | 27659 | 1.22 | 7.7E-02 | AF181897.1 | NT | Homo sapiens WRN (WRN) gene, complete cds |
| 3677 | 16840 | | 2.01 | 7.7E-02 | AJ238093.1 | NT | Homo sapiens partial AF-4 gene, exons 2 to 7 and Alu repeat elements |
| 8093 | 21175 | 34690 | 5.38 | 7.7E-02 | AA402949.1 | EST_HUMAN | zu53d1.1.1 Soares ovary tumor N6HOT Homo sapiens cDNA clone IMAGE:741717 5' similar to TR-G1173905 G1173905 SPLICEOSOME ASSOCIATED PROTEIN ; |
| 10040 | 23078 | 36679 | 4.88 | 7.7E-02 | P38080 | SWISSPROT | PROBABLE SERINE/THREONINE-PROTEIN KINASE YBR059C |
| 10336 | 23371 | 36981 | 0.84 | 7.7E-02 | A1318662.1 | EST_HUMAN | ta80508.x1 NCI_CGAP_HSC2 Homo sapiens cDNA clone IMAGE:2050359 3' similar to gb.Z268878 60S |
| 10336 | 23371 | 36982 | 0.84 | 7.7E-02 | A1318662.1 | EST_HUMAN | RIBOSOMAL PROTEIN L38 (HUMAN); |
| 11262 | 24331 | 37072 | 3.98 | 7.7E-02 | 11422757 | NT | RIBOSOMAL PROTEIN L38 (HUMAN); |
| 3474 | 16841 | 29660 | 3.1 | 7.6E-02 | BE514432.1 | EST_HUMAN | Homo sapiens KIAA0628 gene product (KIAA0628), mRNA |
| 3494 | 16861 | 29873 | 0.98 | 7.6E-02 | AA286447.1 | EST_HUMAN | 601318428F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3634803 5' |
| 3649 | 16812 | 29825 | 0.96 | 7.6E-02 | AJ400877.1 | NT | EST112214 Ceratellum II Homo sapiens cDNA 5' end similar to similar to protocadherin 43 |
| 6222 | 19397 | 32746 | 0.99 | 7.6E-02 | A081275.1 | EST_HUMAN | Homo sapiens ASCL3 gene, CEGP1 gene, C11orf14 gene, C11orf15 gene, C11orf17 gene |
| 6486 | 19553 | 33015 | 1.14 | 7.6E-02 | BE373328.1 | EST_HUMAN | an25g02.x1 Gassler Wilms tumor Homo sapiens cDNA clone IMAGE:1695730 3' |
| 8570 | 22712 | 36280 | 1.11 | 7.6E-02 | AJ131016.1 | NT | 601236402F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3608401 5' |
| 10101 | 23139 | 37064 | 0.99 | 7.6E-02 | AL135078.2 | EST_HUMAN | Homo sapiens SCL gene locus |
| 10424 | 23459 | 37064 | 0.5 | 7.6E-02 | BE708002.1 | EST_HUMAN | Campylobacter jejuni NCTC11198 complete genome; segment 5/6 |
| 10557 | 23592 | | 1.04 | 7.6E-02 | BE595638.2 | EST_HUMAN | RC1-HT0545-020800-017-408 H10545 Homo sapiens cDNA |
| 10815 | 23848 | 37469 | 0.97 | 7.6E-02 | X92656.1 | NT | 901664915R1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:3638810 3' |
| | | | | | | | L. esculentum mRNA for triose phosphate translocator |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 10816 | 23848 | 37470 | 0.97 | 7.6E-02 | X82856.1 | NT | Leucyl-tRNA synthetase mRNA for tissue phosphate translocator |
| 11974 | 24959 | 38661 | 1.93 | 7.6E-02 | AW896845.1 | EST_HUMAN | QV3-BN0046-150400-161-e04 BN0046 Homo sapiens cDNA |
| 807 | 13987 | 27039 | 1.88 | 7.5E-02 | 5902083 | NT | Homo sapiens solute carrier family 9 (neurotransmitter transporter, glycine), member 9 (SLC9A9), mRNA |
| 807 | 13987 | 27040 | 1.66 | 7.6E-02 | 5902093 | NT | Homo sapiens solute carrier family 9 (neurotransmitter transporter, glycine), member 9 (SLC9A9), mRNA |
| 1971 | 15114 | 28214 | 0.99 | 7.5E-02 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 4830 | 17768 | 30748 | 0.74 | 7.5E-02 | AB015961.1 | NT | Homo sapiens IL-18 gene for Interleukin-18, intron 1 and exon 2 |
| 5974 | 19169 | 32477 | 1.45 | 7.5E-02 | AI948714.1 | EST_HUMAN | wk24h09.x1 NCL CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2472267 3' |
| | | | | | | | wk52b02.x1 NCL CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2428461 3' similar to gb:U14328 ALPHA |
| 8533 | 21614 | 35150 | 1.28 | 7.6E-02 | AI964367.1 | EST_HUMAN | ENCLASE (HUMAN); |
| 8705 | 21785 | 35318 | 1.36 | 7.5E-02 | AU116913.1 | EST_HUMAN | AU116913 HEMBA1 Homo sapiens cDNA clone HEMBA1000264 5' |
| 10238 | 23273 | | 0.49 | 7.5E-02 | BF221730.1 | EST_HUMAN | MER27 repetitive element; |
| 10711 | 23744 | 37350 | 0.73 | 7.5E-02 | BF206809.1 | EST_HUMAN | 601870205F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4100449 5' |
| 10816 | 23848 | 37471 | 0.82 | 7.5E-02 | X78480.1 | NT | C.fiml DSM 20113 16S rDNA |
| 490 | 13884 | 26718 | 1.41 | 7.4E-02 | AW838547.1 | EST_HUMAN | RC5-LT0054-260100-011-H09 LT0054 Homo sapiens cDNA |
| 1488 | 14542 | | 1.21 | 7.4E-02 | AF030027.1 | NT | Equine herpesvirus 4 strain NS80597, complete genome |
| 2648 | 15711 | | 0.98 | 7.4E-02 | 6755069 | NT | Mus musculus paired-like homeodomain transcription factor 1 (Pib1), mRNA |
| 3683 | 16846 | 29854 | 1.21 | 7.4E-02 | AI807683.1 | EST_HUMAN | wf43h01.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2358385 3' |
| 4826 | 17959 | 30946 | 1.19 | 7.4E-02 | L78810.1 | NT | Homo sapiens ADP/ATP carrier protein (ANT-2) gene, complete cds |
| 4914 | 18044 | 31034 | 2.65 | 7.4E-02 | 6978442 | NT | Rattus norvegicus Activin receptor like kinase 1 (Acvrl1), mRNA |
| 5056 | 18184 | 31159 | 4.42 | 7.4E-02 | 6978492 | NT | Mus musculus ubiquitin c-terminal hydrolase related polypeptide (Uchrrp), mRNA |
| 6924 | 19784 | | 1.89 | 7.4E-02 | R17477.1 | EST_HUMAN | y814g08.1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:32339 5' |
| 6717 | 18875 | 33268 | 0.66 | 7.4E-02 | AF030422.1 | NT | Electrophorus electricus acetylcholinesterase catalytic subunit precursor gene, complete cds |
| 7636 | 20705 | 34184 | 0.84 | 7.4E-02 | AA605132.1 | EST_HUMAN | nc71d02.x1 NCL CGAP_AA1 Homo sapiens cDNA clone IMAGE:1112269 3' |
| 8055 | 21167 | 34683 | 1.11 | 7.4E-02 | BE880112.1 | EST_HUMAN | 601493388F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3895284 5' |
| 8699 | 21779 | 35312 | 1.28 | 7.4E-02 | U66089.1 | NT | Human periodic tyrosinase protein 2 (PWP2) gene, exons 15 to 21, and complete cds |
| 9367 | 22442 | 36002 | 1.08 | 7.4E-02 | AW629605.1 | EST_HUMAN | h867d11.y1 NCL CGAP_GU1 Homo sapiens cDNA clone IMAGE:2867861 5' similar to SW:SCA2_HUMAN |
| 9367 | 22442 | 36003 | 1.08 | 7.4E-02 | AW629605.1 | EST_HUMAN | h867d11.y1 NCL CGAP_GU1 Homo sapiens cDNA clone IMAGE:2867861 5' similar to SW:SCA2_HUMAN |
| 9639 | 21082 | 34593 | 0.58 | 7.4E-02 | AI872939.1 | EST_HUMAN | O15127 SECRETORY CARRIER-ASSOCIATED MEMBRANE PROTEIN 2 ; |
| 9639 | 21082 | 34594 | 0.58 | 7.4E-02 | AI872939.1 | EST_HUMAN | h867d11.y1 Soares_Dieckgraebe_colon_NHCD Homo sapiens cDNA clone IMAGE:2346819 3' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 10019 | 23057 | 36653 | 1 | 7.4E-02 | U62293.1 | NT | Human LIM-kinase1 and alternatively spliced LIM-kinase1 (LIMK1) gene, complete cds |
| 10146 | 23184 | 36780 | 0.49 | 7.4E-02 | BF512678.1 | EST_HUMAN | U1-H-BW1-amyg-g-06-0-J1.s1 NC1 CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3069898 3' |
| 11266 | 24335 | 37975 | 1.46 | 7.4E-02 | AA059167.1 | EST_HUMAN | zf64e01.r1 Soares retina N2b-JHR Homo sapiens cDNA clone IMAGE:381720 5' |
| 11914 | 24901 | 38604 | 1.42 | 7.4E-02 | AI125063.1 | EST_HUMAN | ac11d07.s1 Barstead aorta HPLRB3 Homo sapiens cDNA clone IMAGE:1726285 3' similar to gb:M89492 |
| 12408 | 26288 | | 1.22 | 7.4E-02 | 11525893 | NT | GLIA MATURATION FACTOR BETA (HUMAN); Homo sapiens histone deacetylase 5 (NY-CO-9). mRNA |
| 12992 | 28101 | | 3.74 | 7.4E-02 | AY379431.1 | EST_HUMAN | GM4-HT0243-081199-037-d11 HT0243 Homo sapiens cDNA |
| 12970 | 26580 | 31985 | 2.61 | 7.4E-02 | BF035099.1 | EST_HUMAN | 801463813F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3857738 5' |
| 12882 | 25585 | 31988 | 1.44 | 7.4E-02 | AJ223459.2 | NT | Aspergillus nidulans pncD, pncX, pncA genes |
| 481 | 13678 | 26709 | 1.15 | 7.3E-02 | BE964961.2 | EST_HUMAN | 801658738R1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3886209 3' |
| 481 | 13678 | 26709 | 1.15 | 7.3E-02 | BE964961.2 | EST_HUMAN | 801658738R1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3886209 3' |
| 702 | 13885 | 28917 | 2.65 | 7.3E-02 | AE001789.1 | NT | Thermoboga maritima section 101 of 136 of the complete genome |
| 1610 | 16040 | 27748 | 3.29 | 7.3E-02 | AW900291.1 | EST_HUMAN | CMO-NN1004-130300-284-g08 NN1004 Homo sapiens cDNA |
| 1893 | 16050 | | 15.79 | 7.3E-02 | AL163302.2 | NT | Homo sapiens chromosome 21 segment HS21C102 |
| 6112 | 18240 | | 1.02 | 7.3E-02 | U12283.1 | NT | Mus musculus transcription factor USF2 (USF2) gene, exons 8-10 and complete cds |
| 6682 | 19744 | 33126 | 1.48 | 7.3E-02 | AA778977.1 | EST_HUMAN | z24e02.s1 Soares fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:451178 3' similar to |
| 7633 | 20702 | 34180 | 2.37 | 7.3E-02 | P06143 | SWISSPROT | gb:1.02428 26S PROTEASE SUBUNIT 4 (HUMAN); PROLINE-RICH PROTEIN MP-3 |
| 7633 | 20702 | 34181 | 2.37 | 7.3E-02 | P06143 | SWISSPROT | PROLINE-RICH PROTEIN MP-3 |
| 7981 | 21030 | | 0.53 | 7.3E-02 | BF316067.1 | EST_HUMAN | 601896047F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4125615 5' |
| 8361 | 21442 | | 1.38 | 7.3E-02 | 7662107 | NT | Homo sapiens KIAA0424 protein (KIAA0424). mRNA |
| 8596 | 21677 | 35214 | 0.5 | 7.3E-02 | Y10887.2 | NT | Mus musculus cdh5 gene, exon 1, partial |
| 8411 | 22485 | | 1.17 | 7.3E-02 | AB011090.1 | NT | Homo sapiens mRNA for KIAA0518 protein, partial cds |
| 11492 | 19744 | 33126 | 1.78 | 7.3E-02 | AA778977.1 | EST_HUMAN | z24e02.s1 Soares fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:451178 3' similar to |
| 122 | 13352 | 26382 | 0.6 | 7.2E-02 | AE000882.1 | NT | gb:1.02428 26S PROTEASE SUBUNIT 4 (HUMAN); Methanobacterium thermoautotrophicum from bases 1029155 to 1038934 (section 88 of 148) of the complete genome |
| 122 | 13352 | 26383 | 0.6 | 7.2E-02 | AE000882.1 | NT | Methanobacterium thermoautotrophicum from bases 1029155 to 1038934 (section 88 of 148) of the complete genome |
| 1505 | 14658 | 27739 | 2.6 | 7.2E-02 | AL163301.2 | NT | Homo sapiens chromosome 21 segment HS21C101 |
| 1505 | 14658 | 27740 | 2.6 | 7.2E-02 | AL163301.2 | NT | Homo sapiens chromosome 21 segment HS21C101 |
| 2814 | 18738 | | 3.34 | 7.2E-02 | U14794.1 | NT | Human immunodeficiency virus type 1 isolate 28 reverse transcriptase (prt) gene, internal fragment, partial cds |
| 3991 | 17148 | 30154 | 0.63 | 7.2E-02 | AW296322.1 | EST_HUMAN | U1-H-BW0-gjl-e-05-0-J1.s1 NC1 CGAP_Sub6 Homo sapiens cDNA clone IMAGE:2732049 3' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 4465 | 17605 | 30583 | 3.07 | 7.2E-02 | BF572307.1 | EST_HUMAN | 602077757F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:4251950 5' |
| 5402 | 18604 | 31576 | 2.73 | 7.2E-02 | U67531.1 | NT | Methanococcus jannaschii section 73 of 150 of the complete genome |
| 6403 | 18606 | 31577 | 8.76 | 7.2E-02 | P11120 | SWISSPROT | CALMODULIN |
| 6244 | 19418 | | 1.11 | 7.2E-02 | BF217598.1 | EST_HUMAN | 601883903F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4086224 5' |
| 7318 | 20400 | 33863 | 1.32 | 7.2E-02 | BF216088.1 | EST_HUMAN | 601883559F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4085710 5' |
| 7336 | 20416 | 33878 | 0.7 | 7.2E-02 | AF221128.1 | NT | Streptococcus pneumoniae putative response regulator (zmpR), putative histidine kinase (zmpS), and putative zinc metalloprotease (zmpB) genes, complete cds |
| 7359 | 20438 | | 1.53 | 7.2E-02 | 6834897 | NT | Strongylocentrotus purpuratus mitochondrion, complete genome |
| 8382 | 21463 | 34987 | 0.8 | 7.2E-02 | P05143 | SWISSPROT | PROLINE-RICH PROTEIN MP-3 |
| 8382 | 21463 | 34988 | 0.6 | 7.2E-02 | P05143 | SWISSPROT | PROLINE-RICH PROTEIN MP-3 |
| 9264 | 22341 | | 0.57 | 7.2E-02 | Y17217.1 | NT | Lactococcus lactis capE gene |
| 9775 | 22815 | | 0.51 | 7.2E-02 | X16349.1 | NT | Human gene for sex hormone-binding globulin (SHBG) |
| 9811 | 22851 | 36430 | 2.19 | 7.2E-02 | AV712432.1 | EST_HUMAN | AV712452 DCA Homo sapiens cDNA clone DCAALG01 5' |
| 9961 | 23000 | 36598 | 4.88 | 7.2E-02 | L14581.1 | NT | Homo sapiens plasma membrane calcium ATPase isoform 1 (ATP2B1) gene, alternative splice products, partial cds |
| 10118 | 23168 | 36754 | 0.96 | 7.2E-02 | BF125399.1 | EST_HUMAN | 601763523F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:4028438 5' |
| 10266 | 23242 | 36833 | 2.34 | 7.2E-02 | AW873187.1 | EST_HUMAN | h24411.x1 NCL_CGAP_Adr1 Homo sapiens cDNA clone IMAGE:3120333 3' similar to TR:Q82340 Q82340 |
| 10395 | 23430 | 37037 | 0.8 | 7.2E-02 | AA768204.1 | EST_HUMAN | ATYPICAL PKC SPECIFIC BINDING PROTEIN ; |
| 10560 | 23599 | 37201 | 2.15 | 7.2E-02 | U82695.2 | NT | cd62c07.s1 NCL_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1316844 3' |
| 10692 | 23725 | 37331 | 5.57 | 7.2E-02 | BE565003.1 | EST_HUMAN | Homo sapiens zinc finger protein 92 (ZFP92), expressed-Xq28STS protein (XQ28ORF), and biglycan (BGN) genes, complete cds; and plasma membrane calcium ATPase isoform 3 (PMCA3) gene, partial cds |
| 10716 | 23749 | | 3.47 | 7.2E-02 | BE538214.1 | EST_HUMAN | 601343928F1 NIH_MGC_63 Homo sapiens cDNA clone IMAGE:3855951 5' |
| 10837 | 23870 | 37492 | 0.55 | 7.2E-02 | AA706897.1 | EST_HUMAN | 601065194F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3451659 5' |
| 11163 | 24224 | 37853 | 4.14 | 7.2E-02 | AF049874.1 | NT | Z228705.s1 Soares_fetal_liver_spleen_TNFSF_S1 Homo sapiens cDNA clone IMAGE:451641 3' |
| 12315 | 25230 | 32104 | 2.12 | 7.2E-02 | AA773696.1 | EST_HUMAN | Rattus norvegicus bHLH transcription factor Mist1 (Mist1) gene, complete cds |
| 12350 | 25253 | | 3.83 | 7.2E-02 | AJ230796.1 | EST_HUMAN | af81a04.r1 Soares_NHMPu_S1 Homo sapiens cDNA clone IMAGE:1048398 6' |
| 12411 | 25260 | | 2.05 | 7.2E-02 | AA584493.1 | EST_HUMAN | AJ230796 Homo sapiens library (Seranski P) Homo sapiens cDNA clone PS13D5 3' |
| 12474 | 25327 | | 4.23 | 7.2E-02 | U82628.1 | NT | nc08508.s1 NCL_CGAP_Phot1 Homo sapiens cDNA clone IMAGE:1099639 3' |
| 12488 | 25937 | | 7.37 | 7.2E-02 | AW60962.1 | EST_HUMAN | Homo sapiens ataxia telangiectasia (ATM) gene, complete cds |
| 13048 | 25987 | | 1.63 | 7.2E-02 | AA401779.1 | EST_HUMAN | GM4-NN1008-200300-119-c11 NN1008 Homo sapiens cDNA |
| 1953 | 15098 | 28187 | 2.06 | 7.1E-02 | L02280.1 | NT | Z57c12.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:726494 5' |
| | | | | | | | Human immunodeficiency virus type 1 (D9) proviral structural capsid protein (gag) gene, partial cds |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 2368 | 16497 | 28623 | 0.8 | 7.1E-02 | BF208802.1 | EST_HUMAN | 601872281F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:4092881 5' |
| 8091 | 21173 | 34687 | 1.03 | 7.1E-02 | AI125284.1 | EST_HUMAN | q92a10.x1 Soares testis NIH Homo sapiens cDNA clone IMAGE:1736922 3' |
| 10866 | 23898 | 37521 | 0.53 | 7.1E-02 | AL183246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 12183 | 25150 | | 0.48 | 7.1E-02 | BE304764.1 | EST_HUMAN | 601143974F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3051234 5' |
| 641 | 13734 | 28758 | 1.4 | 7.0E-02 | Q07092 | SWISSPROT | COLLAGEN ALPHA 1(XVI) CHAIN PRECURSOR |
| 1528 | 14882 | | 1.28 | 7.0E-02 | X96877.1 | NT | Martellia M2cut-1 gene |
| 1801 | 14860 | 28044 | 1.18 | 7.0E-02 | AA056343.1 | EST_HUMAN | z6604.s1 Strategene codon (#837204) Homo sapiens cDNA clone IMAGE:609599 3' |
| 3095 | 18271 | 28288 | 2.02 | 7.0E-02 | AW138152.1 | EST_HUMAN | UI-H-B11-acy-o-07-0-U1.s1 NCL_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2716020 3' |
| 4004 | 17161 | 30167 | 0.65 | 7.0E-02 | AA815438.1 | EST_HUMAN | a66a12.s1 Soares testis NIH Homo sapiens cDNA clone 1376878 3' similar to gb:K03002 60S |
| 4155 | 17307 | 30301 | 1.19 | 7.0E-02 | BE070284.1 | EST_HUMAN | RIBOSOMAL PROTEIN L32 (HUMAN); |
| 4268 | 17403 | | 1.14 | 7.0E-02 | AW792982.1 | EST_HUMAN | QV4-BT0407-280100-080-a10 BT0407 Homo sapiens cDNA |
| 4330 | 17473 | 30468 | 1.19 | 7.0E-02 | AF077821.1 | NT | GMQ-UM0001-060300-270-a12 UM0001 Homo sapiens cDNA |
| 5045 | 18173 | 31150 | 7.97 | 7.0E-02 | BF381987.1 | EST_HUMAN | Canis familiaris inducible nitric oxide synthase mRNA, complete cds |
| 5493 | 18692 | | 0.82 | 7.0E-02 | Y09143.2 | NT | 601816281F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4050071 5' |
| 7560 | 20632 | 34107 | 0.9 | 7.0E-02 | AV689285.1 | EST_HUMAN | Lumbricus rubellus mRNA for cyclophilin B |
| 7782 | 20638 | 34331 | 0.68 | 7.0E-02 | Y19187.1 | NT | AY689285 GK6 Homo sapiens cDNA clone GK6CAE06 5' |
| 8299 | 22375 | 35928 | 1.24 | 7.0E-02 | K02901.1 | NT | Gallus gallus mRNA for partial ezrin, XL spliced variant (acz gene) |
| 8797 | 22837 | 38415 | 1.31 | 7.0E-02 | K02901.1 | NT | African swine fever virus, complete genome |
| 10158 | 23185 | 36791 | 0.88 | 7.0E-02 | U27268.1 | NT | Rat Ig germline epsilon H-chain gene C-region, 3' end |
| 11654 | 24733 | 38424 | 2.6 | 7.0E-02 | AA724295.1 | EST_HUMAN | Human myosin binding protein H (MyBP-H) gene, complete cds |
| 13022 | 25673 | 31858 | 1.2 | 7.0E-02 | 11421838 | NT | ah69a05.s1 Soares NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1327184 3' similar to gb:U14837 |
| 627 | 13720 | 26744 | 7.08 | 6.9E-02 | AL163210.2 | NT | TIGHT JUNCTION PROTEIN ZO-1 (HUMAN); |
| 627 | 13720 | 28745 | 7.08 | 6.9E-02 | AL163210.2 | NT | Homo sapiens hypodermal protein FLJ20116 (FLJ20116), mRNA |
| 1384 | 14518 | | 1.58 | 6.9E-02 | 4507668 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 3893 | 17052 | 30051 | 1.34 | 6.9E-02 | Q06364 | SWISSPROT | Homo sapiens regulator of G2-selective protein signalling (ZGAP1) mRNA, and translated products |
| 3893 | 17052 | 30052 | 1.34 | 6.9E-02 | Q06364 | SWISSPROT | 26S PROTEASOME REGULATORY SUBUNIT S3 (NUCLEAR ANTIGEN 21D7) |
| 5302 | 18419 | 31389 | 4.11 | 6.9E-02 | Z76163.1 | NT | 26S PROTEASOME REGULATORY SUBUNIT S3 (NUCLEAR ANTIGEN 21D7) |
| 5316 | 18433 | 31403 | 0.83 | 6.9E-02 | M34956.1 | NT | H.sapiens flow-sorted chromosome 6 HindIII fragment, SC6pA24f7 |
| 7763 | 20840 | | 0.87 | 6.9E-02 | AF164987.1 | NT | M.hydrophilis 115 kDa protein (p115) gene, complete cds |
| 8242 | 21324 | | 1.14 | 6.9E-02 | U12022.1 | NT | Canine distemper virus strain A75/17, complete genome |
| 8750 | 21829 | 35366 | 1.01 | 6.9E-02 | BE567435.1 | EST_HUMAN | Human calmodulin (CALM1) gene, exons 2,3,4,5 and 6, and complete cds |
| | | | | | | | 601340661F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3683030 5' |

Page 137 of 550
Table 4
Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E- Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|--|--------------------------|-------------------------------|---|
| 8760 | 21829 | 35367 | 1.01 | 6.9E-02 | BE567435.1 | EST_HUMAN | 801340661F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3683030 5' |
| 8320 | 22398 | 35949 | 0.87 | 6.9E-02 | U22867.1 | NT | Barberle duck parvovirus REP protein (rep) and three capsid protein VP (vp) genes, complete cds |
| 11374 | 24435 | 38092 | 1.46 | 0.9E-02 | S81752.1 | NT | DPH2L-candidate tumor suppressor gene (ovarian cancer critical region of deletion) [human, 9 week fetal and placental tissues, mRNA, 2233 nt] |
| 11374 | 24435 | 38092 | 1.46 | 0.9E-02 | S81752.1 | NT | DPH2L-candidate tumor suppressor gene (ovarian cancer critical region of deletion) [human, 9 week fetal and placental tissues, mRNA, 2233 nt] |
| 12346 | 25251 | 38083 | 1.46 | 0.9E-02 | S81752.1 | NT | X.laavis XFD2 mRNA for fork head protein |
| 12524 | 25357 | | 10.94 | 6.9E-02 | X74315.1 | NT | PROTEIN TRANSPORT PROTEIN HOFH HOMOLOG |
| 12770 | 25513 | | 1.58 | 0.9E-02 | P44821 | SWISSPROT | Homo sapiens membrane-bound aminopeptidase P (XNPEP2) gene, complete cds |
| 1922 | 15075 | 28177 | 3.37 | 6.9E-02 | AF195953.1 | NT | es03002.1 Gessler Wilms tumor P1 PRECURSOR (HUMAN); |
| 1932 | 15075 | 28177 | 1.18 | 0.8E-02 | AA496759.1 | EST_HUMAN | MITOCHONDRIAL MATRIX PROTEIN P1 PRECURSOR (HUMAN); |
| 1936 | 15099 | 28188 | 1.18 | 0.8E-02 | AA496759.1 | EST_HUMAN | es03002.1 Gessler Wilms tumor P1 PRECURSOR (HUMAN); |
| 4875 | 17810 | | 3.85 | 6.8E-02 | AF156873.1 | NT | MITOCHONDRIAL MATRIX PROTEIN P1 PRECURSOR (HUMAN); |
| 6768 | 19914 | | 0.64 | 6.8E-02 | BE141076.1 | EST_HUMAN | es03002.1 Gessler Wilms tumor P1 PRECURSOR (HUMAN); |
| 7040 | 20093 | | 0.66 | 6.8E-02 | P20792 | SWISSPROT | Homo sapiens putative hepatic transcription factor (WBSR14) gene, complete cds |
| 7432 | 20509 | 33981 | 0.99 | 6.8E-02 | BE061890.1 | EST_HUMAN | MR0-HT0068-071099-001-c08 HT0068 Homo sapiens cDNA |
| 7861 | 20915 | 34420 | 8.22 | 6.8E-02 | AL163288.2 | NT | CELL-SURFACE RECEPTOR DAF-1 PRECURSOR |
| 8483 | 21564 | 35099 | 0.6 | 6.8E-02 | U16856.1 | NT | RC1-BT0254-090300-017-d08 BT0254 Homo sapiens cDNA |
| 8483 | 21564 | 35100 | 0.03 | 6.8E-02 | AJ248287.1 | NT | Homo sapiens chromosome 21 segment HS21C068 |
| 12141 | 26155 | | 6.03 | 6.8E-02 | AJ248287.1 | NT | Dicystidium discoidum myosin heavy chain kinase A (MHCK A) mRNA, complete cds |
| 12276 | 25208 | | 1.47 | 6.8E-02 | T03214.1 | EST_HUMAN | Pyrococcus abyssi complete genome, segment 5/8 |
| 12906 | 25598 | | 1.64 | 6.8E-02 | AA758014.1 | EST_HUMAN | Pyrococcus abyssi complete genome, segment 5/8 |
| 12972 | 25632 | | 1.34 | 6.8E-02 | AW975839.1 | EST_HUMAN | Pyrococcus abyssi complete genome, segment 5/8 |
| 13203 | 26091 | 31660 | 2.3 | 6.8E-02 | 6910585 | NT | FB4A8 Fetal brain, Stragogene Homo sapiens cDNA clone FB4A8 3' end similar to LINE-1 |
| 1658 | 14711 | | 1.24 | 6.8E-02 | 6978885 | NT | ah07705.s1 Soares testis_NHT Homo sapiens cDNA clone 1320705 3' |
| 1942 | 15035 | 28186 | 2.71 | 6.7E-02 | AF115536.1 | EST_HUMAN | EST387948 IMAGE resequences, MAGN Homo sapiens cDNA |
| 3811 | 18871 | 28973 | 2.17 | 6.7E-02 | AJ20285.1 | EST_HUMAN | Mus musculus latent TGF beta binding protein (Tgfb), mRNA |
| 4063 | 17221 | 30229 | 4.48 | 6.7E-02 | P17278 | SWISSPROT | Rattus norvegicus Growth factor independent-1 (Gfi1), mRNA |
| 4065 | 17221 | 30230 | 0.74 | 6.7E-02 | U63783.1 | NT | Oncorhynchus mykiss TAP1 protein (OnmyTAP1) mRNA, OnmyTAP1*01 allele, complete cds |
| 7969 | 21019 | 34532 | 0.74 | 6.7E-02 | W57759.1 | EST_HUMAN | qg78e04.x1 Soares_NFL_T_G8C_S1 Homo sapiens cDNA clone IMAGE:1841406 3' |
| 8034 | 21117 | 34635 | 0.74 | 6.7E-02 | XG2695.1 | NT | HOMEOBOX PROTEIN HOX-D4 (CHOX-A) |
| | | | | | | | Cyprinus carpio Rap1b mRNA, complete cds |
| | | | | | | | Cyprinus carpio Rap1b mRNA, complete cds |
| | | | | | | | z020g11.s1 Soares_fetal_heart_NbH10W Homo sapiens cDNA clone IMAGE:341252 3' similar to contains |
| | | | | | | | Alu repetitive element; contains element L1 repetitive element; |
| | | | | | | | H. sapiens DNA for cGMP phosphodiesterase (exons 4-22) |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8034 | 21117 | 34836 | 0.74 | 6.7E-02 | X62895.1 | NT | H sapiens DNA for cGMP phosphodiesterase (exons 4-22) |
| 8633 | 21713 | 35250 | 0.73 | 6.7E-02 | AW082688.1 | EST_HUMAN | xb61c11.x1 Soares_NFL_T_GBC_ST Homo sapiens cDNA clone IMAGE:2580788 3' |
| 9800 | 22840 | 38417 | 0.59 | 6.7E-02 | AW137359.1 | EST_HUMAN | UIH-BI1-acr-g-01-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2715433 3' |
| 9800 | 22840 | 38418 | 0.59 | 6.7E-02 | AW137359.1 | EST_HUMAN | UIH-BI1-acr-g-01-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2715433 3' |
| 1379 | 14534 | 27608 | 0.88 | 6.6E-02 | AI735509.1 | EST_HUMAN | at12a09.x1 Barstead acra HPLR86 Homo sapiens cDNA clone IMAGE:2354920 3' similar to SW:LN1_NYCCO P08548 LINE-1 REVERSE TRANSCRIPTASE HOMOLOG.; |
| 2262 | 16385 | 28513 | 3.73 | 6.6E-02 | AJ289241.1 | NT | Mus musculus Capn12 gene for calpain 12, exons 1-21, three alternative transcripts |
| 3552 | 16717 | 29731 | 12.38 | 6.6E-02 | R64306.1 | EST_HUMAN | Y18b10.s1 Soares placenta NB2HP Homo sapiens cDNA clone IMAGE:139579 3' |
| 3667 | 16732 | 29748 | 3.11 | 6.6E-02 | 7108357 | NT | Homo sapiens mesothelin (MSLN), transcript variant 1, mRNA |
| 3567 | 16732 | 29749 | 3.11 | 6.6E-02 | 7108357 | NT | Homo sapiens mesothelin (MSLN), transcript variant 1, mRNA |
| 4191 | 17341 | 30334 | 1.61 | 6.6E-02 | AF260225.1 | NT | Homo sapiens TESTIN 2 and TESTIN 3 genes, complete cds, alternatively spliced |
| 5083 | 18221 | 31191 | 12.07 | 6.6E-02 | Q61703 | SWISSPROT | INTER-ALPHA-TRYPsin INHIBITOR HEAVY CHAIN H2 PRECURSOR (ITI HEAVY CHAIN H2) |
| 5093 | 18221 | 31192 | 12.07 | 6.6E-02 | Q61703 | SWISSPROT | INTER-ALPHA-TRYPsin INHIBITOR HEAVY CHAIN H2 PRECURSOR (ITI HEAVY CHAIN H2) |
| 5130 | 18256 | 31220 | 0.64 | 6.6E-02 | AA393244.1 | EST_HUMAN | z174a07.r1 Soares_festis. NHT Homo sapiens cDNA clone IMAGE:728052 5' similar to gb:L04270 TUMOR NECROSIS FACTOR RECEPTOR 2 RELATED PROTEIN PRECURSOR (HUMAN); |
| 6130 | 18256 | 31221 | 0.64 | 6.6E-02 | AA393244.1 | EST_HUMAN | z174a07.r1 Soares_festis. NHT Homo sapiens cDNA clone IMAGE:728052 5' similar to gb:L04270 TUMOR NECROSIS FACTOR RECEPTOR 2 RELATED PROTEIN PRECURSOR (HUMAN); |
| 6714 | 18872 | 33264 | 3.92 | 6.6E-02 | X08411.1 | NT | P. vulgaris mRNA for chalcone synthase |
| 6746 | 18905 | 33298 | 0.62 | 6.6E-02 | P25159 | SWISSPROT | MATERNAL EFFECT PROTEIN STAUFEN |
| 6746 | 18905 | 33299 | 0.62 | 6.6E-02 | P25159 | SWISSPROT | MATERNAL EFFECT PROTEIN STAUFEN |
| 6937 | 18905 | 33298 | 0.68 | 6.6E-02 | P25159 | SWISSPROT | MATERNAL EFFECT PROTEIN STAUFEN |
| 6937 | 18905 | 33299 | 0.68 | 6.6E-02 | P25159 | SWISSPROT | MATERNAL EFFECT PROTEIN STAUFEN |
| 8133 | 21215 | 34736 | 1.51 | 6.6E-02 | AF052572.1 | NT | Homo sapiens chemokine receptor CXCR4 gene, promoter region and complete cds |
| 8686 | 21749 | 35287 | 0.77 | 6.6E-02 | AF060955.1 | NT | Dicystallum discoidium deifh (darA) gene, complete cds |
| 8979 | 22058 | | 0.53 | 6.6E-02 | Q60673 | SWISSPROT | DNA POLYMERASE ZETA CATALYTIC SUBUNIT (HREV3) |
| 9121 | 22200 | 35741 | 1.28 | 6.6E-02 | 9629188 | NT | Human respiratory syncytial virus, complete genome |
| 9121 | 22200 | 35742 | 1.28 | 6.6E-02 | 9629188 | NT | Human respiratory syncytial virus, complete genome |
| 10157 | 23194 | 36780 | 0.54 | 6.6E-02 | A145872.1 | EST_HUMAN | ig7g06.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2148498 3' |
| 10292 | 23327 | 36830 | 1.5 | 6.6E-02 | Y07848.1 | NT | Homo sapiens EWS, gar22, rrp22 and bam22 genes |
| 10327 | 23362 | | 0.65 | 6.6E-02 | 11430559 | NT | Homo sapiens vinculin (VCL), mRNA |
| 10710 | 23743 | 37349 | 0.49 | 6.6E-02 | BF694659.1 | EST_HUMAN | 602080608F2 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4245336 5' |
| 11205 | 24274 | 37811 | 4.95 | 6.6E-02 | BF374248.1 | EST_HUMAN | MR1-SN0084-010600-008-a12 SN0084 Homo sapiens cDNA |
| 12781 | 25505 | | 4.64 | 6.6E-02 | 9837981 | NT | Mus musculus DIPB gene (Dipb), mRNA |
| 13124 | 25733 | | 1.26 | 6.6E-02 | AF167490.1 | NT | Rattus norvegicus cytochrome P450 2E1 (CYP2E1) gene, 5' flanking region |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 895 | 13785 | 26805 | 1.57 | 6.5E-02 | BF027639.1 | EST_HUMAN | 601671046F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3954178 5' |
| 1011 | 14183 | 27245 | 1.3 | 6.5E-02 | 7706088 | NT | Homo sapiens E2F-like protein (LOC61270), mRNA |
| 1422 | 14576 | 27649 | 3.38 | 6.5E-02 | U47624.1 | NT | Xenopus laevis alpha(E)-calinin mRNA, complete cds |
| 1773 | 14922 | 28016 | 2.04 | 6.5E-02 | AE000764.1 | NT | Aquifex aeolicus section 86 of 109 of the complete genome |
| 5676 | 18870 | 32156 | 2.07 | 6.5E-02 | AA443991.1 | EST_HUMAN | z446h12.s1 Soares ovary tumor NihHOT Homo sapiens cDNA clone IMAGE:756743 3' similar to gb:M26038 |
| 6673 | 19832 | 33221 | 0.73 | 6.5E-02 | BF665340.1 | EST_HUMAN | HLA CLASS II HISTOCOMPATIBILITY ANTIGEN, DR-5 BETA CHAIN (HUMAN); |
| 7113 | 18539 | 31486 | 1.02 | 6.5E-02 | U22661.1 | NT | 602118887F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:4276029 5' |
| 10147 | 23165 | 36781 | 0.57 | 6.5E-02 | BE983200.2 | EST_HUMAN | Azotobacter vinelandii ATCC 9046 negative regulator MucB (mucB) gene, partial cds |
| 10147 | 23165 | 36782 | 0.57 | 6.5E-02 | BE983200.2 | EST_HUMAN | 601666817R1 NIH_MGC_87 Homo sapiens cDNA clone IMAGE:3865637 3' |
| 10683 | 23717 | 37323 | 0.81 | 6.5E-02 | BF106300.1 | EST_HUMAN | 601666817R1 NIH_MGC_87 Homo sapiens cDNA clone IMAGE:3865637 3' |
| 10875 | 23960 | 37589 | 4.45 | 6.5E-02 | AA195648.1 | EST_HUMAN | 60182351F1 NIH_MGC_77 Homo sapiens cDNA clone IMAGE:4043138 5' |
| 12163 | 25129 | | 3.78 | 6.5E-02 | U21496.1 | NT | z32505.e1 Soares_NiHMPu_S1 Homo sapiens cDNA clone IMAGE:665144 3' |
| 12633 | 26363 | | 3.67 | 6.5E-02 | AF102993.1 | NT | Rabbit microsomal epoxide hydrolase |
| 889 | 13780 | 26789 | 1.49 | 6.4E-02 | X84549.1 | NT | Nectria haemabacca kinesin related protein 2 (KRP2) gene, complete cds |
| 1770 | 14919 | 28013 | 0.99 | 6.4E-02 | AE001777.1 | NT | A.carterae precursor of periditin-chlorophyll-protein (PCP) gene |
| 1770 | 14919 | 28014 | 0.99 | 6.4E-02 | AE001777.1 | NT | Thermoboga maritima section 89 of 136 of the complete genome |
| 5566 | 18763 | 31803 | 1.11 | 6.4E-02 | AI191958.1 | EST_HUMAN | Thermoboga maritima section 89 of 136 of the complete genome |
| 6239 | 19413 | 32761 | 2.64 | 6.4E-02 | AF052793.1 | NT | qe07b01.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1738249 3' similar to contains LTR8.b3 |
| 6239 | 19413 | 32762 | 2.64 | 6.4E-02 | AF052793.1 | NT | LTR8 repetitive element |
| 6332 | 19896 | 33059 | 1.23 | 6.4E-02 | AI672698.1 | EST_HUMAN | Heterodera glycines beta-1,4-endoglucanase-1 precursor (HG-eng-1) gene, complete cds |
| 6957 | 20270 | 33708 | 4.11 | 6.4E-02 | BE974448.1 | EST_HUMAN | Heterodera glycines beta-1,4-endoglucanase-1 precursor (HG-eng-1) gene, complete cds |
| 8531 | 21612 | | 2.47 | 6.4E-02 | 8753323 | NT | we73g12.x1 Soares_Dieckgraebe_colon_NHCD Homo sapiens cDNA clone IMAGE:2346780 3' |
| 8665 | 21944 | 35478 | 4.17 | 6.4E-02 | AA093305.1 | EST_HUMAN | 601690426R2 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:3950503 3' |
| 9327 | 22403 | 35955 | 0.98 | 6.4E-02 | AF160195.1 | EST_HUMAN | Mus musculus chaperonin subunit Ga (zeita) (Cof6a), mRNA |
| 9765 | 22826 | | 0.61 | 6.4E-02 | BE834083.1 | EST_HUMAN | K1419.esq.F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA 5' |
| 9918 | 22958 | 36545 | 1.87 | 6.4E-02 | AB011128.1 | NT | AF150195 Human mRNA from c434+ stem cells Homo sapiens cDNA clone CBDAIA10 |
| 10468 | 23503 | 37116 | 0.45 | 6.4E-02 | AF087150.1 | NT | RC1-OT0083-150800-014-g06 OT0083 Homo sapiens cDNA |
| 10468 | 23503 | 37117 | 0.45 | 6.4E-02 | AF087150.1 | NT | Homo sapiens mRNA for KIAA0654 protein, partial cds |
| | | | | | | | Homo sapiens DNA topoisomerase II beta (TOP2B) gene, exons 16, 17, and 18 |
| | | | | | | | Homo sapiens DNA topoisomerase II beta (TOP2B) gene, exons 16, 17, and 18 |
| 12008 | 24993 | 38697 | 1.86 | 6.4E-02 | U91328.1 | NT | Homo sapiens DNA topoisomerase II beta (TOP2B) gene, exons 16, 17, and 18 |
| | | | | | | | Human hereditary haemochromatosis region, histone 2A-like protein gene, hereditary haemochromatosis (H-HA-H) gene, RoRet gene, and sodium phosphate transporter (NP-T3) gene, complete cds |

Page 140 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 12008 | 24953 | 38698 | 1.86 | 6.4E-02 | U91328.1 | NT | Human hereditary haemochromatosis region, histone 2A-like protein gene, hereditary haemochromatosis (H1A-H) gene, RefSeq gene, and sodium phosphate transporter (NP13) gene, complete cds |
| 12427 | 26048 | | 2.7 | 6.4E-02 | AF107890.1 | NT | Homo sapiens mdrn 5B (MUC5B) gene, partial cds |
| 12479 | 25331 | 32056 | 2.61 | 6.4E-02 | AJ277174.1 | NT | Drosophila melanogaster mRNA for mcd(mdg4)51.4 protein |
| 1783 | 14942 | 28035 | 2.51 | 6.3E-02 | AF109905.1 | NT | Mus musculus major histocompatibility locus class III region Hsc70t gene, partial cds; amRNP, G7A, NG23, Muls homolog, CLCP, NG24, NG25, and NG28 genes, complete cds; and unknown genes |
| 3692 | 16854 | | 2.29 | 6.3E-02 | P37092 | SWISSPROT | HEAT SHOCK PROTEIN 70 HOMOLOG |
| 6264 | 19438 | 32785 | 1.12 | 6.3E-02 | BF210736.1 | EST_HUMAN | 601873316F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4087488 5' |
| 7391 | 20469 | | 1.64 | 6.3E-02 | X97899.1 | NT | H. sapiens gene encoding La autoantigen |
| 9401 | 22548 | 36111 | 0.99 | 6.3E-02 | AJ243910.1 | NT | Drosophila melanogaster Dominica gene, exons 1-3 |
| 10218 | 23254 | 36843 | 3.52 | 6.3E-02 | AB010192.1 | NT | Hepatitis G virus RNA for polyprotein (NS5A region), partial cds, strain: CMR-152 |
| 10478 | 23513 | | 1.31 | 6.3E-02 | AV698070.1 | EST_HUMAN | AV698070 GKG Homo sapiens cDNA clone GKCAHE01 5' |
| 10954 | 19438 | 32785 | 2.36 | 6.3E-02 | BF210736.1 | EST_HUMAN | 601873316F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4087499 5' |
| 2549 | 15674 | 28797 | 1.04 | 6.2E-02 | AL161546.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 46 |
| 4365 | 17508 | 30489 | 4.22 | 6.2E-02 | AL161572.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 68 |
| 4458 | 17598 | | 1.03 | 6.2E-02 | AF271235.1 | NT | Rattus norvegicus differentialion-associated Na-dependent inorganic phosphate cotransporter (DNPI) mRNA, complete cds |
| 4705 | 17840 | | 5.68 | 6.2E-02 | Q82191 | SWISSPROT | 52 KD RO PROTEIN (SJOGREN SYNDROME TYPE A ANTIGEN (SS-A)) (RO(SS-A)) (RO52) |
| 6395 | 20250 | 33685 | 0.78 | 6.2E-02 | D49530.1 | NT | Spirulina platensis DNA for adenylate cyclase, complete cds. |
| 7805 | 20951 | 34354 | 0.88 | 6.2E-02 | U41453.1 | NT | Rattus norvegicus PKC binding protein and substrate mRNA, complete cds |
| 8019 | 21057 | | 0.58 | 6.2E-02 | AL161545.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 45 |
| 9148 | 26225 | | 0.92 | 6.2E-02 | M61101.1 | NT | Porcine group C rotavirus (strain Gowden) outer membrane protein (VP7) mRNA, complete cds |
| 9544 | 22809 | 36177 | 0.47 | 6.2E-02 | AA778450.1 | EST_HUMAN | af20a09.61 Soares, total_fetus_NB21F8_9w Homo sapiens cDNA clone IMAGE:1032178 3' |
| 9681 | 22730 | 36300 | 1.19 | 6.2E-02 | AF217490.1 | NT | Mus musculus thymal cell derived factor receptor 2 (Sdr2), mRNA |
| 11415 | 24476 | 38140 | 1.42 | 6.2E-02 | AF214735.1 | NT | Homo sapiens fragile 16D oddo reductase (FOR) gene, exons 8, 9, and partial cds |
| 11629 | 24709 | 38401 | 1.54 | 6.2E-02 | AJ242735.1 | NT | Metarhizium antiseptiae mRNA for Chymotrypsin (chyl) gene |
| 12263 | 26191 | | 3.63 | 6.2E-02 | AF000750.1 | NT | Aquifex aeolicus section 82 of 109 of the complete genome |
| 12617 | 25415 | | 1.24 | 6.2E-02 | BE793085.1 | EST_HUMAN | 601583773F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3837842 5' |
| 12703 | 25487 | 32024 | 3.61 | 6.2E-02 | BF112039.1 | EST_HUMAN | 737h08.x1 Soares, NSF, F8_9w_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3523816 3' similar to |
| 266 | 13485 | 26516 | 3.63 | 6.1E-02 | D16471.1 | NT | TRQ9YAS6 Q9YAS6 HYPOTHETICAL 30.3 KD PROTEIN. [1]; |
| 4059 | 17254 | | 2.85 | 6.1E-02 | U73326.1 | NT | Human mRNA, Xq terminal portion |
| | | | | | | | Arabidopsis thaliana K+ inward rectifying channel protein (AKC1) gene, complete cds |

Page 141 of 550
Table 4
Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6240 | 19414 | | 1.57 | 6.1E-02 | 4507070 | NT | Homo sapiens SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 3 (SMARCA3) mRNA |
| 8458 | 21539 | 35068 | 3.65 | 6.1E-02 | X99268.1 | NT | H. sapiens mRNA for B-HLH DNA binding protein |
| 8861 | 21940 | 35474 | 0.9 | 6.1E-02 | BE971853.1 | EST_HUMAN | 601851086R1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:3934804 3' |
| 8861 | 21940 | 35475 | 0.6 | 6.1E-02 | BE971853.1 | EST_HUMAN | 601851086R1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:3934804 3' |
| 10967 | 24048 | 37681 | 3.9 | 6.1E-02 | BE178543.1 | EST_HUMAN | IL3-HT0818-110500-138-C08-HT0818 Homo sapiens cDNA |
| 12134 | 25114 | 38818 | 1.66 | 6.1E-02 | AB025333.1 | NT | Epitaxial burgeri mRNA for RNA polymerase III largest subunit, partial cds |
| 12218 | 28063 | | 30.03 | 6.1E-02 | X70989.1 | NT | S. japonicum mRNA for serine enzyme |
| 12836 | 25957 | | 1.58 | 6.1E-02 | AI886611.1 | EST_HUMAN | tz59107.x1 NCI_CGAP_Ov65 Homo sapiens cDNA clone IMAGE:2292801 3' |
| 12983 | 25845 | | 6.43 | 6.1E-02 | AL163207.2 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 1291 | 14447 | 27513 | 1.58 | 6.0E-02 | AE001771.1 | NT | Thermotoga maritima section 89 of 138 of the complete genome |
| 2740 | 15557 | 28689 | 1.17 | 6.0E-02 | AW98848.1 | EST_HUMAN | EST360924 IMAGE resequences, MAGJ Homo sapiens cDNA |
| 2832 | 16946 | | 1.43 | 6.0E-02 | AB031289.1 | NT | Mesocricetus cori mitochondria DNA, NADH dehydrogenase subunit 4, tRNA-Gln, tRNA-Phe, tRNA-Met, ATPase subunit 6, and NADH dehydrogenase subunit 2 |
| 3002 | 13335 | 26362 | 1.53 | 6.0E-02 | AA188730.1 | EST_HUMAN | zp78c04.r1 Stratagene HeLa cell s3 937218 Homo sapiens cDNA clone IMAGE:628310 5' |
| 3002 | 13335 | 26363 | 1.53 | 6.0E-02 | AA188730.1 | EST_HUMAN | zp78c04.r1 Stratagene HeLa cell s3 937216 Homo sapiens cDNA clone IMAGE:628310 5' |
| 3301 | 18476 | 29498 | 2.07 | 6.0E-02 | AA372376.1 | EST_HUMAN | EST84268 Colon adenocarcinoma IV Homo sapiens cDNA 5' and similar to tissue-specific protein |
| 3301 | 18476 | 29497 | 2.07 | 6.0E-02 | AA372376.1 | EST_HUMAN | EST84268 Colon adenocarcinoma IV Homo sapiens cDNA 5' and similar to tissue-specific protein |
| 3725 | 18888 | | 0.76 | 6.0E-02 | BE964443.2 | EST_HUMAN | 601663160R1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3876060 3' |
| 5514 | 18712 | | 1.01 | 6.0E-02 | AW370211.1 | EST_HUMAN | RC3-BT0253-011189-013-004 BT0253 Homo sapiens cDNA |
| 6345 | 18515 | 32872 | 1 | 6.0E-02 | AB07537.1 | EST_HUMAN | w448h05.x1 Soares NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2356873 3' similar to contains L1.L1.L1 repetitive element; |
| 7127 | 18553 | 31467 | 2.86 | 6.0E-02 | 5174698 | NT | Homo sapiens stimulated trans-acting factor (60 kDa) (STAF60) mRNA |
| 7127 | 18553 | 31468 | 2.86 | 6.0E-02 | 5174698 | NT | Homo sapiens stimulated trans-acting factor (60 kDa) (STAF60) mRNA |
| 7338 | 20418 | 33880 | 2.37 | 6.0E-02 | BF382349.1 | EST_HUMAN | 601815274F2 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4049228 5' |
| 7857 | 20912 | 34417 | 1.78 | 6.0E-02 | AI204275.1 | EST_HUMAN | q155b08.x1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:1764199 3' |
| 8617 | 21597 | | 0.48 | 6.0E-02 | 11466495 | NT | Recitincornus americana mitochondrion, complete genome |
| 9472 | 22529 | 36092 | 1.29 | 6.0E-02 | AI623167.1 | EST_HUMAN | ts78a06.x1 NCI_CGAP_GC8 Homo sapiens cDNA clone IMAGE:2237382 3' |
| 9472 | 22529 | 36093 | 1.29 | 6.0E-02 | AI623167.1 | EST_HUMAN | ts78a06.x1 NCI_CGAP_GC8 Homo sapiens cDNA clone IMAGE:2237382 3' |
| 9506 | 22681 | 36233 | 2 | 6.0E-02 | AJ245385.1 | NT | Acipenser baeri partial IGLV gene for immunoglobulin light chain variable region, exon 1-2 |
| 9506 | 22681 | 36234 | 2 | 6.0E-02 | AJ245385.1 | NT | Acipenser baeri partial IGLV gene for immunoglobulin light chain variable region, exon 1-2 |
| 10109 | 23147 | 36746 | 0.72 | 6.0E-02 | AA309787.1 | EST_HUMAN | EST180854 Jurkat T-cells V Homo sapiens cDNA 5' and similar to similar to heat shock protein 1, 60 kDa-like |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 10109 | 23147 | 36747 | 0.72 | 8.0E-02 | AA309797.1 | EST_HUMAN | EST180654 Jurkat T-cells V Homo sapiens cDNA 5' end similar to similar to heat shock protein 1, 60 kDa-like |
| 11618 | 24889 | | 1.42 | 8.0E-02 | AA128386.1 | EST_HUMAN | z187c08.t1 Stragene lung carcinoma 837218 Homo sapiens cDNA clone IMAGE:566166 5' similar to gb:X69181.60S RIBOSOMAL PROTEIN L31 (HUMAN); |
| 12921 | 26606 | | 5.12 | 6.0E-02 | AI809273.1 | EST_HUMAN | w68h03.x1 Soares_NFL_T_C8C_S1 Homo sapiens cDNA clone IMAGE:2360885 3' similar to TR:O60298 |
| 239 | 13461 | 26489 | 5.86 | 6.0E-02 | AW934718.1 | EST_HUMAN | O6C298 KIAA0551 PROTEIN; |
| 3048 | 16224 | 29246 | 2.77 | 5.9E-02 | AF180269.1 | NT | RC1-DT0001-280100-012-a10 DT0001 Homo sapiens cDNA |
| 4864 | 17987 | | 0.77 | 6.8E-02 | AF166111.1 | NT | Mus musculus p53 tumor suppressor gene, exon 10 and 11, partial cds; alternatively spliced |
| 8817 | 21898 | 35435 | 2 | 5.9E-02 | 9055249 | NT | Duck parvovirus strain 90-2193 capsid protein (VP3) gene, partial cds |
| 9650 | 21093 | | 0.97 | 5.9E-02 | BF242748.1 | EST_HUMAN | Mus musculus iraqi related homeobox 5 (Drosophila) (hxb), mRNA |
| 11026 | 24104 | | 7.39 | 5.9E-02 | 6079870 | NT | 601877609F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4105994 5' |
| 11835 | 24824 | | 1.35 | 5.9E-02 | BF572539.1 | EST_HUMAN | Mus musculus follethin-like (Fet), mRNA |
| 11850 | 24839 | | 1.37 | 5.9E-02 | AJ240733.1 | NT | 602078548F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:4243834 5' |
| 966 | 14129 | | 6 | 5.8E-02 | D90110.1 | NT | Gallus gallus HKG8 telomere junction |
| 1693 | 14845 | 27929 | 0.97 | 5.8E-02 | Q61768 | SWISSPROT | Thiobacillus ferrooxidans merC, merA genes and URF-1 |
| 3763 | 16814 | 29917 | 1.68 | 5.8E-02 | AE001776.1 | NT | KINESIN HEAVY CHAIN (UBIQUITOUS KINESIN HEAVY CHAIN) (UKHC) |
| 4474 | 17614 | 30593 | 6.78 | 5.8E-02 | AW051927.1 | EST_HUMAN | Thermotoga maritima section 87 of 136 of the complete genome |
| 4474 | 17614 | 30594 | 6.78 | 5.8E-02 | AW051927.1 | EST_HUMAN | w24c02.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2544578 3' |
| 4669 | 17804 | 30792 | 4.64 | 5.8E-02 | AI247505.1 | EST_HUMAN | w24c02.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2544578 3' |
| 4689 | 17804 | 30793 | 4.64 | 5.8E-02 | AI247505.1 | EST_HUMAN | qhs610.1.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1848697 3' similar to gb:M13142 COAGULATION FACTOR XI PRECURSOR (HUMAN); |
| 4698 | 17831 | | 2.1 | 5.8E-02 | AF098294.1 | NT | qhs610.1.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1848697 3' similar to gb:M13142 COAGULATION FACTOR XI PRECURSOR (HUMAN); |
| 7855 | 20910 | 34414 | 2.76 | 5.8E-02 | M99180.1 | NT | Gallus gallus tyrosine kinase JAK1 (JAK1) mRNA, complete cds |
| 7855 | 20910 | 34415 | 2.76 | 5.8E-02 | M99180.1 | NT | Human polymorphic microsatellite DNA |
| 8866 | 21945 | 35479 | 0.61 | 5.8E-02 | AL163283.2 | NT | Human polymorphic microsatellite DNA |
| 12365 | 26281 | | 1.65 | 5.8E-02 | AF220177.1 | NT | Homo sapiens chromosome 21 segment HS21C083 |
| 12681 | 26180 | | 4.55 | 5.8E-02 | AA604268.1 | EST_HUMAN | Drosophila melanogaster male fruitless type-A (fru) mRNA, complete cds |
| 3123 | 16289 | 29312 | 1.14 | 5.7E-02 | AI081644.1 | EST_HUMAN | no79e11.s1 NCI_CGAP_AA1 Homo sapiens cDNA clone IMAGE:1112684 3' |
| 3139 | 16315 | 29328 | 1.09 | 5.7E-02 | AF119117.1 | NT | out63b05.s1 NCI_CGAP_B12 Homo sapiens cDNA clone IMAGE:1632465 3' similar to WP:C37A2.2 |
| 3902 | 17091 | 30060 | 2.3 | 5.7E-02 | AW968791.1 | EST_HUMAN | CE038611; |
| 4807 | 17941 | | 0.95 | 5.7E-02 | M95099.1 | NT | Homo sapiens dopamine transporter (SLC6A3) gene, complete cds |
| | | | | | | | EST1378965 IMAGE resequences, MAGI Homo sapiens cDNA |
| | | | | | | | Bos taurus lysozyme gene (cow 3), complete cds |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 6000 | 19185 | | 0.67 | 5.7E-02 | AF275948.1 | NT | Homo sapiens ABCA1 (ABCA1) gene, complete cds |
| 7630 | 20699 | 34178 | 0.68 | 5.7E-02 | BE871911.1 | EST_HUMAN | G01447837F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3851985 5' |
| 7630 | 20699 | 34178 | 0.68 | 5.7E-02 | BE871911.1 | EST_HUMAN | G01447837F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3851985 5' |
| 7710 | 20775 | 34280 | 0.72 | 5.7E-02 | D78003.1 | NT | Xenopus laevis mRNA for fourth component of complement, complete cds |
| 7710 | 20775 | 34281 | 0.72 | 5.7E-02 | D78003.1 | NT | Xenopus laevis mRNA for fourth component of complement, complete cds |
| 8349 | 21430 | 34954 | 1.45 | 5.7E-02 | AJ286090.1 | NT | Rattus norvegicus mRNA for potassium channel, alpha subunit (Kv9.2 gene) |
| 10055 | 23093 | 36595 | 0.82 | 5.7E-02 | 6881280 | NT | Mus musculus ec2 oncogene (Ec2), mRNA |
| 11484 | 24523 | 38183 | 3.14 | 6.7E-02 | AJ762885.1 | EST_HUMAN | cn18b09.y1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NTBC.cn18b09 random |
| 11484 | 24523 | 38184 | 3.14 | 6.7E-02 | AJ752885.1 | EST_HUMAN | cn18b09.y1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NTBC.cn18b09 random |
| 11630 | 24710 | | 1.68 | 6.7E-02 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 12688 | 25969 | | 19.03 | 5.7E-02 | D50320.1 | NT | Pig DNA for SPAL-2, complete cds |
| 12769 | 25512 | | 2.17 | 5.7E-02 | AJ271733.1 | NT | Homo sapiens Xq pseudautosomal region: segment 1/2 |
| 12863 | 26042 | | 3.04 | 5.7E-02 | AF217490.1 | NT | Homo sapiens fragile T6D oxidoreductase (FOR) gene, exons 8, 9, and partial cds |
| 13012 | 26166 | | 5.21 | 5.7E-02 | AF261280.1 | NT | Pan troglodytes apolipoprotein-E gene, complete cds |
| 13171 | 25759 | 31929 | 1.18 | 5.7E-02 | R48513.1 | EST_HUMAN | y84d10.c1 Soares breast 2Ncl-Bst Homo sapiens cDNA clone IMAGE:163523 3' similar to contains L1 repetitive element; |
| 1556 | 14709 | 27789 | 1.1 | 5.0E-02 | AF094455.1 | NT | Hydrocotyle reticulata ribosomal protein L16 (p16) gene, intron; chloroplast gene for chloroplast product |
| 2362 | 15493 | | 1.55 | 5.0E-02 | BE904308.1 | EST_HUMAN | G01494578F2 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3898810 5' |
| 4763 | 17898 | 30878 | 1.37 | 5.0E-02 | AB013100.1 | NT | Lycopodium obscurum LE-ACS6 mRNA for 1-aminocyclopropane-1-carboxylate synthase, complete cds |
| 4818 | 17951 | 30936 | 1.31 | 5.0E-02 | AA290599.1 | EST_HUMAN | z945c01.at NCL CGAP_Homo sapiens cDNA clone IMAGE:700416 3' |
| 6799 | 19954 | 33354 | 5.87 | 5.0E-02 | AW172708.1 | EST_HUMAN | xj02c10.x1 NCL CGAP_U12 Homo sapiens cDNA clone IMAGE:2856060 3' similar to TR:O94979 O94979 KIAA0905 PROTEIN.; |
| 7031 | 20187 | 33589 | 1.02 | 5.0E-02 | AA866182.1 | EST_HUMAN | od47f12.at NCL CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1371119 3' similar to contains Alu repetitive element; contains element L1 repetitive element; |
| 7301 | 20383 | 33942 | 3.3 | 5.0E-02 | BE008001.1 | EST_HUMAN | QV0-BN0147-290405-214-g07 BN0147 Homo sapiens cDNA |
| 8010 | 21060 | 34372 | 1.32 | 5.0E-02 | A1183583.1 | EST_HUMAN | q664g11.x1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:1734308 3' |
| 9002 | 22081 | 35623 | 2.52 | 5.0E-02 | BE542663.1 | EST_HUMAN | G01067158F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3453279 5' |
| 9002 | 22081 | 35624 | 2.52 | 5.0E-02 | BE542663.1 | EST_HUMAN | G01067158F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3453279 5' |
| 10017 | 23055 | 36651 | 1.18 | 5.0E-02 | AA482864.1 | EST_HUMAN | n149407.at NCL CGAP_Av1 Homo sapiens cDNA clone IMAGE:923245 similar to TR:G769869 G769859 LAMINA ASSOCIATED POLYPEPTIDE 1C.; |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 11863 | 24851 | | 2.42 | 6.6E-02 | AF260225.1 | NT | Homo sapiens TESTIN 2 and TESTIN 3 genes, complete cds, alternatively spliced |
| 2720 | 15938 | 28948 | 7.33 | 6.6E-02 | X97889.1 | NT | H. sapiens gene encoding La autoantigen |
| 3286 | 16460 | 29481 | 3.33 | 5.9E-02 | 6755501 | NT | Mus musculus SH3 domain protein 1B (Sh3d1B), mRNA |
| 4332 | 17475 | 30459 | 0.98 | 5.9E-02 | L41561.1 | NT | Gallid herpesvirus mRNA fragment |
| 5776 | 18958 | 32272 | 3.49 | 5.9E-02 | Q01174 | SWISSPROT | TROPOMYOSIN ALPHA CHAIN, NON MUSCLE |
| 6149 | 18958 | 32272 | 4.32 | 6.6E-02 | Q01174 | SWISSPROT | TROPOMYOSIN ALPHA CHAIN, NON MUSCLE |
| 7535 | 20608 | 34083 | 1.65 | 5.9E-02 | 6755902 | NT | Mus musculus tufalin 1 (Tuf1), mRNA |
| 8311 | 21393 | 34917 | 0.87 | 6.6E-02 | AF170911.1 | NT | Homo sapiens sodium-dependent vitamin C transporter 1 (SVCT1) mRNA, complete cds |
| 8311 | 21393 | 34918 | 0.87 | 5.9E-02 | AF170911.1 | NT | Homo sapiens sodium-dependent vitamin C transporter 1 (SVCT1) mRNA, complete cds |
| 9855 | 22895 | 36476 | 0.76 | 5.9E-02 | 10947034 | NT | Homo sapiens eIF4E-transporter (4E-T), mRNA |
| 9855 | 22895 | 36477 | 0.76 | 6.6E-02 | 10947034 | NT | Homo sapiens eIF4E-transporter (4E-T), mRNA |
| 9951 | 22990 | 36563 | 1.24 | 5.9E-02 | U69492.1 | NT | Mus musculus second IL11 receptor alpha chain (IL11Ra2) gene, exons 1 and 2 |
| 11274 | 24339 | 37977 | | | | | Citrobacter freundii DSM 30040 cyclopropane fatty acid synthase (cfa) gene, partial cds, dihydroxyacetone kinase (dhaK), glycerol dehydrogenase (dhaD), transcriptional activator (dhaR), 1,3-propanediol dehydrogenase (dhaT), glycerol dehydratase (dhaB), > |
| 3084 | 16260 | | 0.85 | 5.4E-02 | AJ277468.1 | NT | Oryza sativa tbb3-1 gene for putative Bowman Birk trypsin inhibitor |
| 3609 | 18476 | | 8.19 | 6.4E-02 | BE073468.1 | EST_HUMAN | RC5-BT0559-140200-012-C03 BT0559 Homo sapiens cDNA |
| 4020 | 17177 | 30186 | 0.61 | 5.4E-02 | U65806.1 | NT | Hirudo medicinalis SNAP-25 homolog mRNA, complete cds |
| 8316 | 21398 | | 1.18 | 5.4E-02 | Z89116.1 | NT | Bacillus subtilis complete genome (section 13 of 21); from 2395281 to 2613730 |
| 9271 | 22347 | 35897 | 0.51 | 5.4E-02 | AF260225.1 | NT | Homo sapiens TESTIN 2 and TESTIN 3 genes, complete cds, alternatively spliced |
| 10938 | 24020 | 37853 | 1.86 | 6.4E-02 | U20780.1 | NT | Neurospora crassa ubiquitin-cytochrome c oxidoreductase subunit VIII (OCR8) mRNA, complete cds |
| 11453 | 24513 | 38180 | 1.36 | 5.4E-02 | BF371289.1 | EST_HUMAN | RC8-FN0112-180700-021-D08 FN0112 Homo sapiens cDNA |
| 11453 | 24513 | 38181 | 1.38 | 5.4E-02 | BF371289.1 | EST_HUMAN | RC8-FN0112-180700-021-D08 FN0112 Homo sapiens cDNA |
| 12463 | 26950 | | 3.72 | 6.4E-02 | U44894.1 | NT | Rana catesbeiana heat shock protein 30 (HSP30) mRNA, complete cds |
| 1078 | 14244 | 27300 | 1.55 | 5.3E-02 | AW391248.1 | EST_HUMAN | QVO-ST0213-021299-082-a09 ST0213 Homo sapiens cDNA |
| 1078 | 14244 | 27301 | 1.55 | 6.3E-02 | AW391248.1 | EST_HUMAN | QVO-ST0213-021299-082-a09 ST0213 Homo sapiens cDNA |
| 1535 | 14698 | 27768 | 20.57 | 6.3E-02 | T94759.1 | EST_HUMAN | ye37112.11 Stragene lung (#937210) Homo sapiens cDNA clone IMAGE:118951 5' similar to gb:K01508 |
| 2566 | 15981 | 28316 | 3.22 | 5.3E-02 | AJ276408.1 | NT | HLA CLASS II HISTOCOMPATIBILITY ANTIGEN, DP(1) ALPHA CHAIN (HUMAN); |
| 3008 | 16184 | 29207 | 0.97 | 5.3E-02 | M58417.1 | NT | Pseudomonas putida tlgS gene |
| 3008 | 16184 | 29208 | 0.97 | 6.3E-02 | M58417.1 | NT | Drosophila melanogaster laminin B2 gene, complete cds |
| 3221 | 16395 | 28408 | 4.83 | 6.3E-02 | AJ276408.1 | NT | Drosophila melanogaster laminin B2 gene, complete cds |
| 5200 | 18321 | 31280 | 7.98 | 5.3E-02 | M80463.1 | NT | Pseudomonas putida tlgS gene |
| | | | | | | | Mus musculus caudal type homeobox-1 (Cdx-1) gene, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 5434 | 18634 | 31612 | 2.39 | 5.3E-02 | AE000527.1 | NT | Helicobacter pylori 26895 section 5 of 134 of the complete genome |
| 5434 | 18634 | 31613 | 2.39 | 5.3E-02 | AE000527.1 | NT | Helicobacter pylori 26895 section 5 of 134 of the complete genome |
| 6228 | 19403 | 32753 | 1.14 | 5.3E-02 | M85289.1 | NT | Human heparan sulfate proteoglycan (HSPG2) mRNA, complete cds |
| 7024 | 20160 | 33580 | 4.02 | 5.3E-02 | 9895413 | NT | Lymphocystis disease virus 1, complete genome |
| 7241 | 20326 | 33769 | 1.37 | 5.3E-02 | U32832.1 | NT | Haemophilus influenzae Rd section 147 of 163 of the complete genome |
| 7517 | 20550 | | 2.3 | 5.3E-02 | S78221.1 | NT | nuclear protein TIF1 isoform [mice, mRNA, 4053 nt] |
| 8061 | 21073 | 34585 | 0.68 | 5.3E-02 | P38742 | SWISSPROT | HYPOTHETICAL 130.0 KD PROTEIN IN SNF6-SPO11 INTERGENIC REGION |
| 8600 | 21881 | | 0.68 | 5.3E-02 | U10098.1 | NT | Mus musculus 129/Sv cystatin C (cst3) gene, complete cds |
| 8925 | 22401 | 35954 | 1.73 | 5.3E-02 | X03127.1 | NT | Podospora anserina mitochondrial splicing-act DNA |
| 10462 | 23497 | | 0.61 | 5.3E-02 | V07907.1 | NT | D. rerio mRNA for zp-23 POU gene, splice variant (neurula, 9-10 hpf and postmitogenesis, 20-28 hpf) |
| 10538 | 23573 | 37180 | 0.70 | 5.3E-02 | X68432.1 | NT | B. rerio pou3c mRNA for transcription factor |
| 13173 | 25761 | 31631 | 1.55 | 5.3E-02 | AF276815.1 | NT | Branchiostoma floridae homeodomain-containing protein Hox13 (Hox13) gene, exon 2 and partial cds |
| 2368 | 16489 | | 64.04 | 5.2E-02 | 5031908 | NT | Homo sapiens neprin A, alpha (PABA peptide hydrolase) (MEPIA) mRNA |
| 3183 | 16358 | 29363 | 2.39 | 5.2E-02 | AJ277661.1 | NT | Homo sapiens partial LMO1 gene for LIM domain only 1 protein, exon 1 |
| 3183 | 16358 | 29364 | 2.39 | 5.2E-02 | AJ277661.1 | NT | Homo sapiens partial LMO1 gene for LIM domain only 1 protein, exon 1 |
| 4060 | 17206 | 30216 | 0.8 | 5.2E-02 | AF236101.1 | NT | Arabidopsis thaliana putative dicarboxylate diiron protein (Crd1) mRNA, complete cds |
| 4393 | 17536 | 30515 | 3.31 | 5.2E-02 | U07132.1 | NT | Human steroid hormone receptor Nsr-1 mRNA, complete cds |
| 5287 | 18408 | 31373 | 0.66 | 5.2E-02 | AB035201.1 | NT | Rattus norvegicus mRNA for tyroglobulin, complete cds |
| 6040 | 19223 | 32545 | 0.64 | 5.2E-02 | U14731.1 | NT | Saccharomyces cerevisiae Cdc54p (CDC54) gene, complete cds |
| 6233 | 19408 | | 0.94 | 6.2E-02 | AB09066.1 | EST_HUMAN | w180a04.x1 NCI_CGAP_Lym12 Homo sapiens cDNA clone IMAGE:2409150 3' similar to contains MER15.b1 |
| 7424 | 20601 | 33972 | 1.23 | 5.2E-02 | P36322 | SWISSPROT | DNA POLYMERASE PROCESSIVITY FACTOR (POLYMERASE ACCESSORY PROTEIN) (PAP) (DNA-BINDING GENE 18 PROTEIN) |
| 8389 | 21470 | | 2.39 | 5.2E-02 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 9931 | 22971 | 36560 | 2.16 | 5.2E-02 | D10927.1 | NT | Turnip mosaic virus genomic RNA for Capsid protein, complete cds |
| 9931 | 22971 | 36561 | 2.16 | 5.2E-02 | D10927.1 | NT | Turnip mosaic virus genomic RNA for Capsid protein, complete cds |
| 12725 | 25483 | | 1.6 | 6.2E-02 | Q03030 | SWISSPROT | OXALACETATE DECARBOXYLASE ALPHA CHAIN |
| 2437 | 15563 | | 0.98 | 6.1E-02 | AL134071.1 | EST_HUMAN | DKFZp647D073.1 647 (synonym: hibr1) Homo sapiens cDNA clone DKFZp647D073.5 |
| 5161 | 18283 | 31248 | 0.89 | 5.1E-02 | BE957423.2 | EST_HUMAN | 601653555R2 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:3838381 3' |
| 5261 | 18372 | | 0.96 | 6.1E-02 | AL139077.2 | NT | Campylobacter jejuni NCTG11168 complete genome; segment 4/8 |
| 5349 | 18462 | | 0.74 | 6.1E-02 | U72397.1 | NT | Bacteriophage 80 alpha holin and amidase genes, complete cds |
| 6812 | 19956 | 33370 | 0.78 | 6.1E-02 | AF260359.1 | NT | HIV-1 patient 95 from Italy protease (pol) gene, complete cds |

Page 148 of 550
Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6897 | 18516 | 31608 | 1.73 | 5.1E-02 | BF378625.1 | EST_HUMAN | QV0-UM0061-250800-350-508 UM0061 Homo sapiens cDNA |
| 8447 | 21528 | 35053 | 0.82 | 5.1E-02 | M26434.1 | NT | Human hypoxanthine phosphoribosyltransferase (HPRT) gene, complete cds |
| 8447 | 21528 | 35056 | 0.82 | 5.1E-02 | M26434.1 | NT | Human hypoxanthine phosphoribosyltransferase (HPRT) gene, complete cds |
| 8542 | 21623 | 35160 | 1.42 | 5.1E-02 | AJ131986.1 | NT | Spodoplera littoralis mRNA for 3-dehydroxydione 3beta-reductase |
| 9086 | 22165 | 35710 | 0.63 | 5.1E-02 | P02533 | SWISSPROT | KERATIN, TYPE I CYTOSKELETAL 14 (CYTOKERATIN 14) (K14) (CK 14) |
| 9086 | 22165 | 35711 | 0.63 | 5.1E-02 | P02533 | SWISSPROT | KERATIN, TYPE I CYTOSKELETAL 14 (CYTOKERATIN 14) (K14) (CK 14) |
| 10014 | 23032 | 36846 | 4.27 | 5.1E-02 | AF012898.1 | NT | Candida albicans protein phosphatase Ssd1 homolog (SSD1) gene, complete cds |
| 10384 | 23419 | 37028 | 1.9 | 5.1E-02 | P40603 | SWISSPROT | ANTER-SPECIFIC PROLINE-RICH PROTEIN APG (PROTEIN CEX) |
| 10384 | 23419 | 37028 | 1.9 | 5.1E-02 | P40603 | NT | Homo sapiens ES18 mRNA, partial cds |
| 10688 | 24143 | 37778 | 1.81 | 5.1E-02 | AF083930.1 | NT | Homo sapiens ES18 mRNA, partial cds |
| 10688 | 24143 | 37779 | 1.81 | 5.1E-02 | AF083930.1 | NT | Cucumis melo polygalacturonase precursor (MPG3) mRNA, complete cds |
| 12738 | 25487 | 26721 | 2.8 | 5.0E-02 | AF062467.1 | NT | Mus musculus fatty acid amide hydrolase gene, exon 10 |
| 495 | 13690 | 26721 | 2.8 | 5.0E-02 | AF062467.1 | NT | Bacillus subtilis complete genome (section 1 of 21): from 1 to 2130880 |
| 1231 | 14390 | 27452 | 2.82 | 5.0E-02 | Z99104.1 | NT | 4) (P1F-F1P1-S) (PROTEIN APROTEIN C) [CONTAINS: PEPTIDE P-C] |
| 2047 | 16188 | 28299 | 5.08 | 5.0E-02 | P02810 | SWISSPROT | SALVARY ACIDIC PROLINE-RICH PHOSPHOPROTEIN 1/2 PRECURSOR (PRP-1/PRP-3) (PRP-2/PRP-4) (P1F-F1P1-S) (PROTEIN APROTEIN C) [CONTAINS: PEPTIDE P-C] |
| 2678 | 14182 | 27244 | 10.88 | 5.0E-02 | U72742.1 | NT | Cryptoblagus cuniculus UDP-glucuronosyltransferase (UGT2B13) mRNA, complete cds |
| 3418 | 16587 | | 1.36 | 5.0E-02 | 7305610 | NT | Mus musculus Ure-51 like kinase 2 (C. elegans) (Ulk2), mRNA |
| 3684 | 16847 | | 1.01 | 5.0E-02 | U32782.1 | NT | Haemophilus influenzae Rd section 97 of 163 of the complete genome |
| 3775 | 16936 | 29942 | 5.8 | 5.0E-02 | U12769.2 | NT | Antheraea pernyi period clock protein homolog mRNA, complete cds |
| 4841 | 18071 | | 1.05 | 5.0E-02 | P40232 | SWISSPROT | CASEIN KINASE II BETA CHAIN (CK II) |
| 6258 | 19432 | 32779 | 0.84 | 5.0E-02 | AF086264.1 | NT | Gallus gallus tyrosine kinase JAK1 (JAK1) mRNA, complete cds |
| 8438 | 18603 | | 1.28 | 5.0E-02 | AJ242825.1 | NT | Mus musculus Dmp-1 gene, exons 1-6 |
| 7128 | 18554 | 31469 | 0.58 | 5.0E-02 | P35616 | SWISSPROT | NEUROFILAMENT TRIPLET L PROTEIN (NEUROFILAMENT LIGHT POLYPEPTIDE) (NFL) |
| 7709 | 20774 | 34259 | 10.04 | 5.0E-02 | P35616 | SWISSPROT | NEUROFILAMENT TRIPLET L PROTEIN (NEUROFILAMENT LIGHT POLYPEPTIDE) (NFL) |
| 7913 | 20884 | | 0.67 | 5.0E-02 | AW062484.1 | EST_HUMAN | MR0-CT0084-100899-002-g10 CT0084 Homo sapiens cDNA |
| 10403 | 23438 | 37045 | 1.37 | 5.0E-02 | AF305238.1 | NT | Mus musculus Fas-interacting serine/threonine kinase 3 (Fas3) mRNA, complete cds |
| 10856 | 23888 | | 0.55 | 5.0E-02 | BF2713260.1 | EST_HUMAN | 601844753F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:4070101 5' |
| 11762 | 24772 | 38468 | 2.26 | 5.0E-02 | U67600.1 | NT | Methanococcus jannaschii section 142 of 160 of the complete genome |
| 12228 | 26004 | | 4.7 | 5.0E-02 | Q04047 | SWISSPROT | NO-ON-TRANSIENT A PROTEIN |
| 231 | 13452 | | 11.82 | 4.8E-02 | M14230.1 | NT | Chicken 28-kDa vitamin D-dependent calcium-binding protein (CaBP-28) mRNA, complete cds |
| 380 | 13588 | 26623 | 4.18 | 4.9E-02 | AF275948.1 | NT | Homo sapiens ABCA1 (ABCA1) gene, complete cds |
| 380 | 13588 | 26624 | 4.18 | 4.9E-02 | AF275948.1 | NT | Homo sapiens ABCA1 (ABCA1) gene, complete cds |
| 2637 | 18114 | 29126 | 0.71 | 4.8E-02 | U32836.1 | NT | Zea mays phytoene synthase (Y1) gene, complete cds |
| 3360 | 18532 | 29548 | 1.65 | 4.9E-02 | P54258 | SWISSPROT | ATROPHIN-1 (DENTATORUBRAL-PALLIDOLYSIAN ATROPHY PROTEIN) |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 3680 | 18923 | | 0.85 | 4.9E-02 | AA188940.1 | EST_HUMAN | z448a12.s1 Stratagene hNT neuron (#637233) Homo sapiens cDNA clone IMAGE:632828 3' similar to contains Alu repetitive element/contains element MSR1 repetitive element ; |
| 3681 | 18944 | 29851 | 0.78 | 4.9E-02 | AA400914.1 | EST_HUMAN | z78a03.s1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:728428 3' |
| 3681 | 18944 | 28852 | 0.78 | 4.9E-02 | AA400914.1 | EST_HUMAN | z78a03.s1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:728428 3' |
| 4964 | 18093 | 31069 | 2.64 | 4.9E-02 | AW167821.1 | EST_HUMAN | xg56g10.x1 NCI_CGAP_U14 Homo sapiens cDNA clone IMAGE:2632386 3' |
| 4964 | 18093 | 31070 | 2.84 | 4.9E-02 | AW167821.1 | EST_HUMAN | xg56g10.x1 NCI_CGAP_U14 Homo sapiens cDNA clone IMAGE:2632386 3' |
| 5488 | 18685 | 31702 | 1.82 | 4.9E-02 | LO0122.1 | NT | Rat elastase II gene, exon 8 |
| 5488 | 18685 | 31703 | 1.82 | 4.9E-02 | LO0122.1 | NT | Rat elastase II gene, exon 8 |
| 7292 | 20374 | 33831 | 1.79 | 4.9E-02 | AE000980.1 | NT | Archaeoglobus fulgidus section 127 of 172 of the complete genome |
| 8816 | 21884 | | 1.07 | 4.9E-02 | AE002309.1 | NT | Chlamydia muridarum, section 40 of 85 of the complete genome |
| 8942 | 22021 | | 0.61 | 4.9E-02 | BE831532.1 | EST_HUMAN | MR0-H70408-170800-003-a08 H70408 Homo sapiens cDNA |
| 8954 | 22033 | 36576 | 0.97 | 4.9E-02 | AL161559.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 59 |
| 10500 | 23555 | 37145 | 0.54 | 4.9E-02 | P16532 | SWISSPROT | TRANSCRIPTION FACTOR E3 |
| 10802 | 23835 | 37459 | 1.57 | 4.9E-02 | L41161.1 | NT | Mus musculus SM22 alpha gene, exon 1 |
| 10802 | 23835 | 37460 | 1.57 | 4.9E-02 | L41161.1 | NT | Mus musculus SM22 alpha gene, exon 1 |
| 11687 | 24886 | 38376 | 3.46 | 4.9E-02 | AF008303.1 | NT | Homo sapiens prepro placental TGF-beta gene, complete cds |
| 12957 | 25624 | | 3.23 | 4.9E-02 | M19384.1 | NT | Human gamma-B-crystallin (gamma 1-2) and gamma-C-crystallin (gamma 2-1) genes, complete cds |
| 340 | 13952 | 26582 | 1.19 | 4.9E-02 | D16471.1 | NT | Human mRNA, Xq terminal portion |
| 341 | 13952 | 26582 | 2.61 | 4.9E-02 | D16471.1 | NT | Human mRNA, Xq terminal portion |
| 501 | 13696 | 28726 | 11.53 | 4.9E-02 | AF003100.1 | NT | Arabidopsis thaliana AP2 domain containing protein RAP2.7 mRNA, partial cds |
| 2347 | 16478 | 28610 | 2.08 | 4.9E-02 | W51983.1 | EST_HUMAN | z448a02.s1 Soares, senescent_fibroblasts_NbHSF Homo sapiens cDNA clone IMAGE:328611 3' similar to gb:M30938 LUPUS KU AUTOANTIGEN PROTEIN P88 (HUMAN); |
| 3280 | 16454 | 29476 | 1.79 | 4.9E-02 | X17144.1 | NT | Tetrahymena rostrata histone H3II and histone H4II intergenic DNA |
| 4793 | 17928 | | 1.06 | 4.9E-02 | Z54280.1 | NT | S.scrofa gene for skeletal muscle tyrosine receptor |
| 5237 | 18359 | 31328 | 0.88 | 4.9E-02 | U91914.1 | NT | Streptococcus constellatus D-alanine-D-alanine ligase gene, partial cds |
| 8332 | 21414 | 34940 | 1.41 | 4.9E-02 | AW388497.1 | EST_HUMAN | MR2-ST0128-221098-012-b02 ST0129 Homo sapiens cDNA |
| 9329 | 22405 | 35957 | 1.01 | 4.9E-02 | AJ001396.1 | NT | Fugu rubripes rps24 gene |
| 9329 | 22405 | 35968 | 1.01 | 4.9E-02 | AJ001398.1 | NT | Fugu rubripes rps24 gene |
| 11219 | 24288 | 37828 | 1.84 | 4.9E-02 | X61236.1 | NT | S.cerevisiae NUM1 gene, involved in nuclear migration control |
| 11219 | 24288 | 37828 | 1.84 | 4.9E-02 | X61236.1 | NT | S.cerevisiae NUM1 gene, involved in nuclear migration control |
| 12511 | 25350 | | 1.46 | 4.9E-02 | 9632893 | NT | Streptococcus thermophilus bacteriophage Sf19, complete genome |
| 5122 | 18248 | 31214 | 0.74 | 4.7E-02 | 6881261 | NT | Rattus norvegicus Nestin (Nes), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6969 | 20197 | 33623 | 3.34 | 4.7E-02 | W01153.1 | EST_HUMAN | y297f09.r1 Soares melanocyte 2NbrHM Homo sapiens cDNA clone IMAGE:281017 5' similar to contains Alu repetitive element |
| 7025 | 20161 | 33581 | 0.69 | 4.7E-02 | BF686825.1 | EST_HUMAN | 602143554F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4304772 5' |
| 7029 | 20161 | 33582 | 0.69 | 4.7E-02 | BF686825.1 | EST_HUMAN | 602143554F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4304772 5' |
| 7058 | 20111 | 33527 | 1.71 | 4.7E-02 | MB2752.1 | NT | Rat statin-related protein (s1) gene, complete CDS |
| 8446 | 21626 | 36053 | 9.44 | 4.7E-02 | X15543.1 | NT | B. taurus mRNA for RF-38-DNA-binding protein |
| 8154 | 22332 | 35777 | 1.31 | 4.7E-02 | X89211.1 | NT | H. sapiens DNA for endogenous retroviral like element |
| 9178 | 22354 | | 2.97 | 4.7E-02 | AB026678.1 | NT | Gallus gallus Wpkcl-8 gene, complete cds |
| 8428 | 22502 | 38068 | 7.75 | 4.7E-02 | X15943.1 | NT | B. taurus mRNA for RF-38-DNA-binding protein |
| 8938 | 22979 | | 0.7 | 4.7E-02 | A1873042.1 | EST_HUMAN | we78c10.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2347314 3' |
| 11852 | 24841 | 38535 | 1.43 | 4.7E-02 | U73621.1 | NT | Bos taurus paired box protein (pax-6) gene, partial cds |
| 11852 | 24841 | 38536 | 1.43 | 4.7E-02 | U73621.1 | NT | Bos taurus paired box protein (pax-6) gene, partial cds |
| 12446 | 26162 | | 4.31 | 4.7E-02 | AV648521.1 | EST_HUMAN | AV048521 GLC Homo sapiens cDNA clone GLCBKD02.3' |
| 281 | 13469 | 26531 | 0.69 | 4.6E-02 | BE153583.1 | EST_HUMAN | PM0-HT0339-251199-003-g05 HT0339 Homo sapiens cDNA |
| 758 | 13939 | 26984 | 2.89 | 4.6E-02 | AE000445.1 | NT | Escherichia coli K-12 MG1685 section 335 of 400 of the complete genome |
| 1320 | 14478 | | 1.49 | 4.6E-02 | A1014255.1 | EST_HUMAN | em50d02.s1 Johnston frontal cortex Homo sapiens cDNA clone IMAGE:1638979 3' similar to TR:P00533 |
| 1390 | 14544 | 27620 | 5.39 | 4.6E-02 | AV727059.1 | EST_HUMAN | P00533 LIMA ;contains element LTR1 repetitive element; |
| 2557 | 15682 | 28807 | 2.34 | 4.6E-02 | AW236023.1 | EST_HUMAN | AV727059 HTC Homo sapiens cDNA clone IMAGE:2884853 3' similar to SW:GRF1_HUMAN |
| 2859 | 13499 | 26531 | 1.78 | 4.6E-02 | BE153583.1 | EST_HUMAN | xn24f03.x1 NCI CGAP_K0111 Homo sapiens cDNA clone HTCBW001 5' |
| 3073 | 16249 | 29270 | 0.64 | 4.6E-02 | BE183583.1 | EST_HUMAN | Q12849 G-RICH SEQUENCE FACTOR-1; |
| 3410 | 16249 | 29270 | 0.59 | 4.6E-02 | BE153583.1 | EST_HUMAN | PM0-HT0339-251199-003-g05 HT0339 Homo sapiens cDNA |
| 3585 | 16249 | 29270 | 0.64 | 4.6E-02 | BE153583.1 | EST_HUMAN | PM0-HT0339-251199-003-g05 HT0339 Homo sapiens cDNA |
| 4239 | 17385 | | 0.82 | 4.6E-02 | AF220365.1 | NT | PM0-HT0339-251199-003-g05 HT0339 Homo sapiens cDNA |
| 5852 | 19042 | 32348 | 1.57 | 4.6E-02 | AF076982.1 | NT | Mus musculus nucleolar RNA helicase II/Gu (dxd21) gene, complete cds |
| 6359 | 19529 | 32887 | 3.67 | 4.6E-02 | X61624.1 | NT | Haplochromis burtoni gonadotropin-releasing hormone and GnRH-associated peptide precursor (Gnrh2) gene, complete cds |
| 6359 | 19529 | 32888 | 3.67 | 4.6E-02 | X61624.1 | NT | C.reinhardtii dp2 (apb) mRNA |
| 6938 | 20251 | 33687 | 1.41 | 4.6E-02 | A1149574.1 | EST_HUMAN | C.reinhardtii dp2 (apb) mRNA |
| 8007 | 21057 | 34569 | 0.63 | 4.6E-02 | 6978720 | NT | q600008.x1 Soares_placenta_800weeks_2NbrIP689W Homo sapiens cDNA clone IMAGE:1713971 3' similar to contains L1.13 L1 repetitive element; |
| 8856 | 21935 | 35472 | 3.81 | 4.6E-02 | BE154008.1 | EST_HUMAN | Rattus norvegicus Cathespin H (Cath), mRNA |
| 11689 | 24687 | 38377 | 3.39 | 4.6E-02 | AA913328.1 | EST_HUMAN | PM0-HT0339-060400-009-G12 HT0339 Homo sapiens cDNA |
| | | | | | | | 0127109.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1524737 3' |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 13078 | 25708 | | 3.14 | 4.6E-02 | X57808.1 | NT | Human germline immunoglobulin lambda light chain gene |
| 480 | 13655 | 26693 | 2.24 | 4.5E-02 | P22448 | SWISSPROT | RETINOIC ACID RECEPTOR BETA (RAR-BETA) |
| 1245 | 14704 | 27465 | 1.52 | 4.5E-02 | AF005730.1 | NT | Marburg virus strain M/S Africa/Johannesburg/1976/Ozolin VP35 gene, complete cds |
| 1245 | 14404 | 27466 | 1.52 | 4.5E-02 | AF005730.1 | NT | Marburg virus strain M/S Africa/Johannesburg/1976/Ozolin VP35 gene, complete cds |
| 1847 | 14893 | 28095 | 4.93 | 4.5E-02 | P32182 | SWISSPROT | HEPATOCYTE NUCLEAR FACTOR 3-BETA (HNF-3B) |
| 2177 | 16312 | 28440 | 2.2 | 4.5E-02 | AE003964.1 | NT | Xyella fastidiosa, section 110 of 229 of the complete genome |
| 3817 | 16977 | 29881 | 5.04 | 4.5E-02 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 6360 | 19530 | 32889 | 1.63 | 4.5E-02 | AJ400877.1 | NT | Homo sapiens ASCL3 gene, CEGP1 gene, C11orf14 gene, C11orf15 gene, C11orf16 gene and C11orf17 gene |
| 6838 | 19785 | 33184 | 0.84 | 4.5E-02 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 7018 | 20154 | 33574 | 0.59 | 4.5E-02 | L28487.1 | NT | Methanococcus jelskii carbon monoxide dehydrogenase large subunit (cdh1A) gene, carbon monoxide dehydrogenase small subunit (cdh1B) gene, complete cds |
| 7018 | 20154 | 33575 | 0.59 | 4.5E-02 | L28487.1 | NT | Methanococcus jelskii carbon monoxide dehydrogenase large subunit (cdh1A) gene, carbon monoxide dehydrogenase small subunit (cdh1B) gene, complete cds |
| 8587 | 21668 | 35207 | 2.24 | 4.5E-02 | AF036684.1 | NT | Arabidopsis thaliana CCAAT-box binding factor HAP3 homolog gene, complete cds |
| 10195 | 23182 | 36788 | 4.2 | 4.5E-02 | AA325218.1 | EST_HUMAN | EST28167 Cerebellum II Homo sapiens cDNA 5' and similar to neuro-D4 protein |
| 10305 | 23340 | 36945 | 0.47 | 4.5E-02 | X95508.1 | NT | A. europaeum mRNA for legumin-like protein |
| 10421 | 23458 | 37081 | 0.78 | 4.5E-02 | AB000470.1 | NT | Gallus gallus mRNA for alpha1 integrin, complete cds |
| 12442 | 26313 | 32089 | 2.61 | 4.5E-02 | AA181097.1 | EST_HUMAN | Homo sapiens ret finger protein-like 3 (RFLP3), mRNA |
| 12891 | 28061 | 31684 | 3.79 | 4.5E-02 | BE972733.1 | EST_HUMAN | Z44311.1 Striatum HNT neuron (#837233) Homo sapiens cDNA clone IMAGE:632483 5' |
| 227 | 13449 | | 4.35 | 4.4E-02 | BE972733.1 | EST_HUMAN | 601652164F1 NIH_MGC_82 Homo sapiens cDNA clone IMAGE:393888 5' |
| 1080 | 14216 | 27273 | 0.77 | 4.4E-02 | L19295.1 | NT | Drosophila melanogaster extracellular matrix (EXD) mRNA, complete cds |
| 2163 | 15269 | | 6.82 | 4.4E-02 | P31568 | SWISSPROT | HYPOTHETICAL PROTEIN (ORF 2280) |
| 2559 | 15684 | 28609 | 1.81 | 4.4E-02 | AW876475.1 | EST_HUMAN | QY2FT0012-010300-070-g02 PT0012 Homo sapiens cDNA |
| 3730 | 16891 | 28865 | 1.68 | 4.4E-02 | AF159160.1 | NT | Mycoplasma xanthus serine/threonine kinase Pkn10 (pkn10) gene, complete cds |
| 4750 | 17885 | 30888 | 1.33 | 4.4E-02 | AF109907.1 | NT | Homo sapiens S164 gene, partial cds; PS1 and hypothetical protein genes, complete cds; and S171 gene, partial cds |
| 4750 | 17885 | 30887 | 1.33 | 4.4E-02 | AF109907.1 | NT | Homo sapiens S164 gene, partial cds; PS1 and hypothetical protein genes, complete cds; and S171 gene, partial cds |
| 7287 | 20350 | 33802 | 0.59 | 4.4E-02 | AF095824.1 | NT | Canis familiaris matrix metalloproteinase 9 (MMP-9) mRNA, partial cds |
| 7287 | 20350 | 33803 | 0.59 | 4.4E-02 | AF095824.1 | NT | Canis familiaris matrix metalloproteinase 9 (MMP-9) mRNA, partial cds |
| 8932 | 22031 | 35572 | 2.34 | 4.4E-02 | AA736889.1 | EST_HUMAN | ntw13h03.st NCL_CGAP_SS1 Homo sapiens cDNA clone IMAGE:1239221 3' |
| 11328 | 24389 | 38034 | 2.64 | 4.4E-02 | AF060689.1 | NT | Hepatitis E virus strain HEV-US2 polyprotein (ORF1), (ORF3), and capsid protein (ORF2) genes, complete cds |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 11477 | 24536 | 38206 | 3.08 | 4.4E-02 | AA468739.1 | EST_HUMAN | oes3304.r1 Gessler Wilms tumor Homo sapiens cDNA clone IMAGE:897631 5' |
| 12158 | 25126 | | 4.55 | 4.4E-02 | AB040928.1 | NT | Homo sapiens mRNA for KIAA1463 protein, partial cds |
| 12347 | 28162 | | 1.65 | 4.4E-02 | BF21245.1 | EST_HUMAN | 601878746F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4107418 5' |
| 802 | 13982 | 27034 | 7.25 | 4.3E-02 | AF003249.1 | NT | Morone saxatilis myosin heavy chain FM3A (FM3A) mRNA, complete cds |
| 2634 | 15757 | 28871 | 1.65 | 4.3E-02 | AV704878.1 | EST_HUMAN | AV704878 AD18 Homo sapiens cDNA clone ADBAOH08 5' |
| 3516 | 16682 | 28683 | 9.18 | 4.3E-02 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 3749 | 16910 | | 1.21 | 4.3E-02 | AF060588.1 | NT | Homo sapiens promyelocytic leukemia zinc finger protein (PLZF) gene, complete cds |
| 6825 | 19785 | 33172 | 4.84 | 4.3E-02 | P30427 | SWISSPROT | PLECTIN |
| 6825 | 19785 | 33173 | 4.84 | 4.3E-02 | P30427 | SWISSPROT | ns69c12.s1 NCJ_CGAP_P12 Homo sapiens cDNA clone IMAGE:118886 |
| 8871 | 20023 | 33433 | 0.69 | 4.3E-02 | AA652286.1 | EST_HUMAN | Homo sapiens desmocollin 3 (DSC3) gene, complete cds, alternatively spliced |
| 8711 | 21791 | 35327 | 0.69 | 4.3E-02 | AF283369.1 | NT | H.sapiens NCAM mRNA for neural cell adhesion molecule |
| 8001 | 22080 | 35821 | 1.32 | 4.3E-02 | X55322.1 | NT | H.sapiens NCAM mRNA for neural cell adhesion molecule |
| 6001 | -22080 | 35822 | 1.32 | 4.3E-02 | X55322.1 | NT | Campylobacter jejuni NCTC11168 complete genome, segment 4/6 |
| 12412 | 25291 | | 1.2 | 4.3E-02 | AL139077.2 | NT | AU123327 NT2RM2 Homo sapiens cDNA clone NT2RM2000020 5' |
| 845 | 14023 | 27081 | 1.74 | 4.2E-02 | AU123327.1 | EST_HUMAN | AU123327 NT2RM2 Homo sapiens cDNA clone NT2RM2000020 5' |
| 889 | 14065 | | 2.4 | 4.2E-02 | AU123327.1 | EST_HUMAN | wx3ag01.x1 NCJ_CGAP_P11 Homo sapiens cDNA clone IMAGE:2545584 3' similar to TR:Q63291 Q63291 L1 RETROPOSON, ORF2 MRNA; contains L1 L1 L1 repetitive element; |
| 919 | 14094 | 27169 | 1.51 | 4.2E-02 | AW003846.1 | EST_HUMAN | Thermoplasma acidophilum complete genome; segment 4/5 |
| 1768 | 14807 | | 1.37 | 4.2E-02 | AL445086.1 | NT | TRANSFORMING PROTEIN MAF |
| 1819 | 14868 | 28060 | 0.69 | 4.2E-02 | P23091 | SWISSPROT | TRANSFORMING PROTEIN MAF |
| 3784 | 16915 | 28918 | 1.66 | 4.2E-02 | P23091 | SWISSPROT | 602017105F1 NCJ_CGAP_Bm64 Homo sapiens cDNA clone IMAGE:4152672 5' |
| 4865 | 17898 | 30882 | 0.59 | 4.2E-02 | BF342895.1 | EST_HUMAN | Homo sapiens cytochrome P450 polypeptide 43 (CYP3A43) gene, partial cds; cytochrome P450 polypeptide 4 (CYP3A4) and cytochrome P450 polypeptide 7 (CYP3A7) genes, complete cds; and cytochrome P450 polypeptide 5 (CYP3A5) gene, partial cds |
| 5735 | 18928 | 32224 | 0.74 | 4.2E-02 | AF280107.1 | NT | Homo sapiens cytochrome P450 polypeptide 43 (CYP3A43) gene, partial cds; cytochrome P450 polypeptide 4 (CYP3A4) and cytochrome P450 polypeptide 7 (CYP3A7) genes, complete cds; and cytochrome P450 polypeptide 5 (CYP3A5) gene, partial cds |
| 5735 | 18928 | 32225 | 0.74 | 4.2E-02 | AF280107.1 | NT | 601121598F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:2885319 5' |
| 7122 | 18548 | 31460 | 0.61 | 4.2E-02 | BE268285.1 | EST_HUMAN | Legionella pneumophila catalase-peroxidase (katA) gene, complete cds |
| 7695 | 20760 | 34244 | 4.35 | 4.2E-02 | AF278782.1 | NT | AV730347 HTF Homo sapiens cDNA clone HTFAV04 5' |
| 7717 | 20761 | 34267 | 0.61 | 4.2E-02 | AF278782.1 | EST_HUMAN | ALPHA-ACTININ 3, NON MUSCULAR (F-ACTIN CROSS LINKING PROTEIN) |
| 8010 | 22089 | 35631 | 3.92 | 4.2E-02 | P06095 | SWISSPROT | T-BRAIN-1 PROTEIN (T-BOX BRAIN PROTEIN 1) (TBR-1) (TES-66) |
| 10367 | 23402 | 37013 | 1.48 | 4.2E-02 | Q16650 | SWISSPROT | |

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 11295 | 24381 | 38002 | 1.52 | 4.2E-02 | AA976118.1 | EST_HUMAN | on33b11.s1 NCL_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1658461 3' similar to gb:M65290 INTERLEUKIN-12 BETA CHAIN PRECURSOR (HUMAN); |
| 11587 | 24640 | 38320 | 2.83 | 4.2E-02 | BE815922.1 | EST_HUMAN | PM3-BN0174-250500-009-d10 BN0174 Homo sapiens cDNA |
| 11587 | 24640 | 38321 | 2.83 | 4.2E-02 | BE815922.1 | EST_HUMAN | PM3-BN0174-250500-009-d10 BN0174 Homo sapiens cDNA |
| 11795 | 24785 | 38483 | 1.52 | 4.2E-02 | AF176458.1 | NT | PRRS isolate PRRSV36 envelope glycoprotein gene, complete cds |
| 12728 | 26109 | | 6.84 | 4.2E-02 | AI883494.1 | EST_HUMAN | w49g10.x1 NCL_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2510850 3' |
| 13076 | 25705 | | 1.17 | 4.2E-02 | D14711.1 | NT | Staphylococcus aureus HSP10 and HSP60 genes |
| 923 | 13716 | 26743 | 1.85 | 4.1E-02 | AF200628.1 | NT | Homo sapiens HPS1 gene, Intron 5 |
| 2741 | 18558 | 28970 | 1.06 | 4.1E-02 | AE002330.2 | NT | Chlamydia muridarum, section 60 of 85 of the complete genome |
| 4005 | 17162 | 30168 | 0.61 | 4.1E-02 | BE297236.1 | EST_HUMAN | 601177907F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3533353 5' |
| 4005 | 17162 | 30169 | 0.61 | 4.1E-02 | BE297236.1 | EST_HUMAN | 601177907F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3533353 5' |
| 4595 | 17732 | | 8.4 | 4.1E-02 | AW863484.1 | EST_HUMAN | QV1-NN0012-180400-164-068 NN0012 Homo sapiens cDNA L monocytogenes type 3 partial lap gene (strain 443) |
| 6229 | 18351 | | 0.61 | 4.1E-02 | X85880.1 | NT | 601107635F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3343858 5' |
| 6758 | 18951 | 32263 | 1.06 | 4.1E-02 | BE251894.1 | EST_HUMAN | 601107635F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3343858 5' |
| 5758 | 18951 | 32264 | 1.06 | 4.1E-02 | BE251894.1 | EST_HUMAN | A. italiana mRNA for plasma membrane intrinsic protein 1a |
| 7022 | 20158 | | 0.98 | 4.1E-02 | X75881.1 | NT | Ureaplasma urealyticum section 33 of 59 of the complete genome |
| 7248 | 20331 | 33778 | 1.38 | 4.1E-02 | AE002132.1 | NT | Homo sapiens KIAA0867 protein (KIAA0867), mRNA |
| 7682 | 20747 | 34228 | 1.79 | 4.1E-02 | 7682347 | NT | Mus musculus proviral retroviral insertion in the cGMP-phosphodiesterase (rd beta PDE) gene, Intron 1, with the proviral insert encompassing the env pseudogene (3' end) and 3' LTR |
| 7778 | 20831 | 34325 | 20.08 | 4.1E-02 | L02110.1 | NT | Fugu rubripes neural cell adhesion molecule L1 homolog (L1-CAM) gene, complete cds; putative protein 1 (PUT1) gene, partial cds; mitosis-specific chromosome segregation protein SMC1 homolog (SMC1) gene, complete cds; and calcium channel alpha-1 subunit |
| 7842 | 20992 | 34502 | 2.81 | 4.1E-02 | AF026188.1 | NT | ADAMTS 1 PRECURSOR (A DISINTEGRIN AND METALLOPROTEINASE WITH THROMBOSPONDIN MOTIFS 1) (ADAMTS-1) (ADAM-TS1) |
| 8402 | 21483 | 35011 | 0.74 | 4.1E-02 | P97857 | SWISSPROT | CUTICLE COLLAGEN 34 |
| 8845 | 21924 | 35482 | 0.79 | 4.1E-02 | P34687 | SWISSPROT | EST84291 Colon adenocarcinoma IV Homo sapiens cDNA 5' end |
| 9355 | 22430 | 35988 | 0.87 | 4.1E-02 | AA372398.1 | EST_HUMAN | Brassica napus gln gene for putid glutamine synthetase, exons 1-12 |
| 13112 | 26110 | 31668 | 9.91 | 4.1E-02 | AJ271909.1 | NT | Homo sapiens mRNA for KIAA1471 protein, partial cds |
| 3316 | 16488 | 29507 | 3.85 | 4.0E-02 | AB040904.1 | NT | Human retinoblastoma susceptibility gene exons 1-27, complete cds |
| 3900 | 17059 | 30058 | 1.08 | 4.0E-02 | L11810.1 | NT | Homo sapiens cytochrome P450 polypeptide 43 (CYP3A43) gene, partial cds; cytochrome P450 polypeptide 4 (CYP3A4) and cytochrome P450 polypeptide 7 (CYP3A7) genes, complete cds; and cytochrome P450 polypeptide 5 (CYP3A5) gene, partial cds |
| 6495 | 18594 | 31710 | 5.31 | 4.0E-02 | AF280107.1 | NT | |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6343 | 19513 | 32870 | 0.98 | 4.0E-02 | BF110434.1 | EST_HUMAN | 7n52h07.x1 NC1_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3568380 3' similar to TR-O75288 O75288 R29124_1.; |
| 7887 | 20921 | 34428 | 5.99 | 4.0E-02 | L23838.1 | NT | Strongylocentrotus purpuratus homolog of human bone morphogenetic protein 1 (submp) mRNA, complete cds |
| 7829 | 20979 | | 0.71 | 4.0E-02 | AL181535.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 35 |
| 7943 | 20963 | 34503 | 0.8 | 4.0E-02 | AB000381.1 | NT | Homo sapiens DNA for GPI-anchored molecule-like protein, complete cds |
| 7943 | 20963 | 34504 | 0.8 | 4.0E-02 | AB000381.1 | NT | Homo sapiens DNA for GPI-anchored molecule-like protein, complete cds |
| 7880 | 21029 | 34543 | 0.61 | 4.0E-02 | AF288163.1 | NT | Homo sapiens erythrocyte tropomodulin (E-TMOD) gene, exon 7 |
| 8914 | 21893 | 35532 | 2.52 | 4.0E-02 | P08840 | SWISSPROT | GLUCOAMYLASE STS2 PRECURSOR (GLUCAN 1,4-ALPHA-GLUCOSIDASE) (1,4-ALPHA-D-GLUCAN GLUCOHYDROLASE) |
| 9844 | 22884 | | 0.63 | 4.0E-02 | BF079376.1 | EST_HUMAN | 60215884F1 NIH_MGC 83 Homo sapiens cDNA clone IMAGE:4284724 5' |
| 9869 | 22909 | 36495 | 2.48 | 4.0E-02 | AJ000941.1 | NT | Methanobacterium thermoautotrophicum strain Marburg, Thiol fumarate reductase subunit A |
| 10180 | 23227 | | 1.08 | 4.0E-02 | D43949.1 | NT | Human mRNA for KIAA0082 gene, partial cds |
| 12073 | 25054 | | 1.52 | 4.0E-02 | AJ001018.1 | NT | Kluyveromyces fragilis gene for Cat+ ATPase |
| 12333 | 25009 | 31859 | 16.34 | 4.0E-02 | AJ001056.1 | NT | Ovis aries mRNA for acetyl-coA carboxylase |
| 1144 | 14308 | 27368 | 2.79 | 3.9E-02 | BF516149.1 | EST_HUMAN | UI-H-BW1-ant-h-08-0-U1.s1 NC1_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3084134 3' |
| 1375 | 14530 | 27603 | 2.15 | 3.9E-02 | P41047 | SWISSPROT | FAS ANTIGEN LIGAND |
| 2016 | 15166 | 28261 | 3.22 | 3.9E-02 | AJ403386.1 | NT | M.musculus DNA for desamin-binding fragment DesD7 |
| 2769 | 15884 | | 1.97 | 3.9E-02 | 4506862 | NT | Homo sapiens succinate dehydrogenase complex, subunit C, integral membrane protein, 15kd (SDHC) mRNA |
| 5246 | 18367 | 31334 | 0.67 | 3.9E-02 | AW392417.1 | EST_HUMAN | RC6-ST0258-171199-021-Q09 ST0258 Homo sapiens cDNA |
| 5279 | 18368 | 31366 | 0.9 | 3.9E-02 | 8924018 | NT | Homo sapiens hypothetical protein PRO1163 (PRO1163), mRNA |
| 5279 | 18368 | 31367 | 0.9 | 3.9E-02 | 8924018 | NT | Homo sapiens hypothetical protein PRO1163 (PRO1163), mRNA |
| 5849 | 18039 | 32346 | 1 | 3.9E-02 | BE688841.1 | EST_HUMAN | 601649874F1 NIH_MGC 74 Homo sapiens cDNA clone IMAGE:3933642 5' |
| 5977 | 19182 | 32482 | 0.65 | 3.9E-02 | BF676203.1 | EST_HUMAN | 602138132F1 NIH_MGC 83 Homo sapiens cDNA clone IMAGE:4274910 5' |
| 7203 | 20068 | 33478 | 0.97 | 3.9E-02 | BE271437.1 | EST_HUMAN | 601140729F1 NIH_MGC 9 Homo sapiens cDNA clone IMAGE:3049830 5' |
| 8023 | 21108 | 34623 | 1.44 | 3.9E-02 | BF233613.1 | EST_HUMAN | 601608848F1 NIH_MGC 54 Homo sapiens cDNA clone IMAGE:4134779 5' |
| 8250 | 21332 | 34849 | 0.6 | 3.9E-02 | AJ229041.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3 |
| 8250 | 21332 | 34850 | 0.6 | 3.9E-02 | AJ229041.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3 |
| 11695 | 21071 | 34562 | 1.56 | 3.9E-02 | P48778 | SWISSPROT | ANTIGEN GOR |
| 12184 | 26039 | | 3.94 | 3.9E-02 | AB042553.1 | NT | Felis catus G-CSF gene for granulocyte colony-stimulating factor, complete cds |

Page 153 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe Seq ID NO: | Exon Seq ID NO: | ORF Seq ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 12898 | 25595 | | 2.35 | 3.9E-02 | U68061.1 | NT | Human germline T-cell receptor beta chain TCRBV17S1A1T, TCRBV2S1, TCRBV10S1P, TCRBV29S1P, TCRBV19S1P, TCRBV15S1, TCRBV11S1A1T, HVB relic, TCRBV28S1P, TCRBV34S1, TCRBV14S1, TCRBV3S1, TCRBV4S1A1T, TRY4, TRY5, TRY6, TRY7, TRY8, TORBD1, TORBJ1S1, TORBJ1S2, > |
| 13036 | 25979 | | 64.89 | 3.9E-02 | AL049868.2 | NT | Mus musculus chromosome X contigB; X-linked lymphocyte regulated 5 gene, Zinc finger protein 276, Zinc finger protein 92, mmxq28orf |
| 5558 | 18754 | 31792 | 0.8 | 3.8E-02 | M11228.1 | NT | Human protein C gene, complete cds |
| 6212 | 19387 | 32738 | 1.04 | 3.8E-02 | P10284 | SWISSPROT | HOMEOBOX PROTEIN HOXB4 (HOXB2.6) |
| 7471 | 20546 | 34018 | 1.72 | 3.8E-02 | 6005700 | NT | Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 8 (ABCA8), mRNA |
| 8864 | 21943 | | 1.51 | 3.8E-02 | M80876.1 | NT | Human von Willebrand factor gene, exons 23 through 34 |
| 10789 | 23822 | 37448 | 0.64 | 3.8E-02 | 7682563 | NT | Homo sapiens PRO0514 protein (PRO0514), mRNA |
| 10868 | 23972 | 37603 | 1.71 | 3.8E-02 | AF143952.2 | NT | Homo sapiens PELOTA (PELOTA) gene, complete cds |
| 1016 | 14187 | 27248 | 4.05 | 3.7E-02 | P18137 | SWISSPROT | LAMININ ALPHA-1 CHAIN PRECURSOR (LAMININ A CHAIN) |
| 2310 | 15442 | 28577 | 6.19 | 3.7E-02 | A884808.1 | EST_HUMAN | w85e08.x1 NC1_QCAP_Kid11 Homo sapiens cDNA clone IMAGE:2494502 3' |
| 2645 | 15768 | 28883 | 0.97 | 3.7E-02 | AB018261.1 | NT | Homo sapiens mRNA for KIAA0718 protein, partial cds |
| 3116 | 16291 | 29306 | 1.13 | 3.7E-02 | P78944 | SWISSPROT | EOMESODERMIN |
| 3117 | 18293 | 29307 | 4.33 | 3.7E-02 | BF312863.1 | EST_HUMAN | 601B96233F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4125684 5' |
| 3543 | 16708 | | 0.91 | 3.7E-02 | 6880541 | NT | Mus musculus potassium large conductance pH-sensitive channel, subfamily M, alpha member 3 (Kcnma3), mRNA |
| 7226 | 26216 | | 0.95 | 3.7E-02 | AF000083.1 | NT | Aeropyrum pernix genomic DNA, section 617 |
| 7868 | 20923 | 34430 | 0.81 | 3.7E-02 | AE003975.1 | NT | Xylolla fastidiosa, section 121 of 229 of the complete genome |
| 10216 | 23255 | | 1.01 | 3.7E-02 | AA782516.1 | EST_HUMAN | af55c09.s1 Source: parathyroid_tumor_NbH1PA Homo sapiens cDNA clone 1360912 3' |
| 12227 | 25175 | 38837 | 7.41 | 3.7E-02 | BF124074.1 | EST_HUMAN | 601762117F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:4024973 5' |
| 12081 | 25945 | 31764 | 3.71 | 3.7E-02 | 11418392 | NT | Homo sapiens solute carrier family 22 (organic cation transporter), member 1 (SLC22A1), mRNA |
| 13069 | 25998 | | 1.23 | 3.7E-02 | 11487432 | NT | Odontella sinensis chloroplast, complete genome |
| 3744 | 16905 | 29809 | 0.82 | 3.6E-02 | X73221.1 | NT | H. vulgare Sst1 gene for sucrose synthase |
| 3752 | 16913 | 29816 | 0.9 | 3.6E-02 | AL098806.1 | NT | Homo sapiens genomic region containing hypervariable minisatellites chromosome 10[10q26.3] of Homo sapiens |
| 5313 | 18430 | 31400 | 0.67 | 3.6E-02 | AL098810.1 | NT | Homo sapiens genomic region containing hypervariable minisatellites chromosome 10[10q26.3] of Homo sapiens |
| 5543 | 18740 | 31758 | 0.61 | 3.6E-02 | X59403.1 | NT | C. glutamicum gap, pgk and tpi genes for glyceraldehyde-3-phosphate, phosphoglycerate kinase and triosephosphate isomerase |
| 5543 | 18740 | 31774 | 0.61 | 3.6E-02 | X59403.1 | NT | C. glutamicum gap, pgk and tpi genes for glyceraldehyde-3-phosphate, phosphoglycerate kinase and triosephosphate isomerase |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 5617 | 18811 | 31880 | 0.68 | 3.6E-02 | AF181722.1 | NT | Homo sapiens RUZAS (RUZ) mRNA, complete cds |
| 6846 | 19599 | 33406 | 4.48 | 3.6E-02 | AW945516.1 | EST_HUMAN | CNM2-EN0013:110500-192-b10 EN0013 Homo sapiens cDNA |
| 6846 | 19599 | 33407 | 4.48 | 3.6E-02 | AW945516.1 | EST_HUMAN | CNM2-EN0013:110500-192-b10 EN0013 Homo sapiens cDNA |
| 7234 | 20318 | 33761 | 1.79 | 3.6E-02 | AF025952.1 | NT | Chromatium vinosum sulfur globule protein Cx2 precursor (sgp2) gene, complete cds |
| | | | | | | | nm20e05.s1 NC1_CGAP GC80 Homo sapiens cDNA clone IMAGE:1241024.3' similar to gb:J00314_mn2 |
| 7458 | 20534 | 34009 | 2.89 | 3.6E-02 | AA714521.1 | EST_HUMAN | TUBULIN BETA-1 CHAIN (HUMAN); |
| 7811 | 20866 | 34360 | 0.94 | 3.6E-02 | BE143078.1 | EST_HUMAN | MIR0-HT0159-030200-003-508 HT0159 Homo sapiens cDNA |
| | | | | | | | Dicystostellum discoidesum unknown spore germination-specific protein-like protein, orf1, orf2 and orf3 genes, complete cds |
| 8591 | 22846 | 36216 | 2.16 | 3.6E-02 | U20608.1 | NT | Dicystostellum discoidesum unknown spore germination-specific protein-like protein, orf1, orf2 and orf3 genes, complete cds |
| 8591 | 22846 | 36217 | 2.16 | 3.6E-02 | U20608.1 | NT | complete cds |
| 8812 | 22852 | 36431 | 0.84 | 3.6E-02 | BF347688.1 | EST_HUMAN | 602020453F1 NC1_CGAP_Bn67 Homo sapiens cDNA clone IMAGE:4156118.5' |
| 11456 | 24516 | 38183 | 1.48 | 3.6E-02 | BF131609.1 | EST_HUMAN | 601820416F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4052570.5' |
| 11456 | 24516 | 38184 | 1.46 | 3.6E-02 | BF131609.1 | EST_HUMAN | 601820416F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4052570.5' |
| 918 | 14053 | 27158 | 0.89 | 3.5E-02 | U09506.1 | NT | Drosophila melanogaster figgrin mRNA, complete cds |
| 1033 | 14202 | 27280 | 2.43 | 3.5E-02 | AF253417.1 | NT | Homo sapiens microsomal epoxide hydrolase (EPHX1) gene, complete cds |
| 1595 | 14748 | 27831 | 1.4 | 3.6E-02 | BF678085.1 | EST_HUMAN | 602085136F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4249377.5' |
| 1595 | 14748 | 27832 | 1.4 | 3.5E-02 | BF678085.1 | EST_HUMAN | 602085136F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4249377.5' |
| 4329 | 17472 | 30457 | 1.83 | 3.5E-02 | AE001773.1 | NT | Thermotoga maritima section 85 of 136 of the complete genome |
| 4436 | 17676 | 30556 | 1.11 | 3.5E-02 | P53780 | SWISSPROT | CYSTATHIONINE BETA-LYASE PRECURSOR (OBL) (BETA-CYSTATHIONASE) (CYSTEINE LYASE) |
| 6351 | 19521 | 32878 | 1.76 | 3.6E-02 | J01238.1 | NT | Maize actin 1 gene (Mact1), complete cds |
| | | | | | | | yp44a05.r1 Sacchara rellina N2b6HR Homo sapiens cDNA clone IMAGE:190256.5' similar to contains Alu repetitive element; |
| 8165 | 21247 | | 0.91 | 3.5E-02 | H29951.1 | EST_HUMAN | 60194701R2 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:3928737.3' |
| 8824 | 21903 | 35443 | 2.93 | 3.5E-02 | BE988970.1 | EST_HUMAN | Lilacine MG1363 griPE and dhak genes |
| 10224 | 23260 | 36948 | 0.94 | 3.5E-02 | J756642.1 | NT | 601344661F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3677654.6' |
| 10270 | 23305 | 36902 | 0.61 | 3.5E-02 | BE561042.1 | EST_HUMAN | PM1-CT0328-281289-002-H03 CT0328 Homo sapiens cDNA |
| 11765 | 24775 | 38471 | 1.79 | 3.6E-02 | AW861644.1 | EST_HUMAN | PM1-CT0328-281289-002-H03 CT0328 Homo sapiens cDNA |
| 11785 | 24775 | 38472 | 1.79 | 3.6E-02 | AW861644.1 | EST_HUMAN | Homo sapiens T cell receptor beta locus, TCRBV85SP to TCRBV21S2A2 region |
| 12876 | 25583 | | 1.31 | 3.5E-02 | AF008953.1 | NT | 601178765F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3543833.5' |
| 12856 | 25991 | | 2.71 | 3.5E-02 | BE276948.1 | EST_HUMAN | Homo sapiens mRNA for FLJ00013 protein, partial cds |
| 592 | 13763 | 26802 | 47.29 | 3.4E-02 | AK024424.1 | NT | Homo sapiens mRNA for FLJ00013 protein, partial cds |
| 592 | 13763 | 26802 | 47.28 | 3.4E-02 | AK024424.1 | NT | Homo sapiens mRNA for FLJ00013 protein, partial cds |
| 592 | 13763 | 26802 | 47.28 | 3.4E-02 | AK024424.1 | NT | Homo sapiens mRNA for FLJ00013 protein, partial cds |
| 592 | 13763 | 26802 | 47.28 | 3.4E-02 | AK024424.1 | NT | Homo sapiens mRNA for FLJ00013 protein, partial cds |

Single Exon Probes Expressed in Placenta

| Probe ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|--------------|-----------------|----------------|-------------------|--------------------------------------|-----------------------|-------------------------|--|
| 693 | 13783 | 28803 | 3.28 | 3.4E-02 | AK024424.1 | NT | Homo sapiens mRNA for FLJ00013 protein, partial cds |
| 1076 | 14242 | 27288 | 2.57 | 3.4E-02 | AW274020.1 | EST_HUMAN | x28d07.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2814253 3' similar to SW:C211_HUMAN P53801 PUTATIVE SURFACE GLYCOPROTEIN C21ORF1 PRECURSOR; |
| 1233 | 14392 | | 5.43 | 3.4E-02 | 11346469 | NT | Homo sapiens hypothetical protein FLJ13220 (FLJ13220), mRNA |
| 2466 | 15592 | 28717 | 1.7 | 3.4E-02 | T57160.1 | EST_HUMAN | yc20e08.t1 Stratagene lung (#837210) Homo sapiens cDNA clone IMAGE:81250 5' similar to contains MER28 repetitive element |
| 3617 | 16683 | 29684 | 1.5 | 3.4E-02 | AL163208.2 | NT | Homo sapiens chromosome 21 segment HS21C008 |
| 3875 | 17034 | 30032 | 0.81 | 3.4E-02 | BE839514.1 | EST_HUMAN | RC3-FN0155-060700-011-010 FN0155 Homo sapiens cDNA |
| 4030 | 17186 | 30196 | 3.72 | 3.4E-02 | AW784952.1 | EST_HUMAN | RC8-UM0015-210200-021-A10 UM0015 Homo sapiens cDNA |
| 4720 | 17855 | 30838 | 2.77 | 3.4E-02 | X59799.1 | NT | M.musculus S-antigen gene promoter region |
| 5172 | 18294 | | 1.9 | 3.4E-02 | Q28457 | SWISSPROT | LA PROTEIN HOMOLOG (LA RIBONUCLEOPROTEIN) (LA AUTOANTIGEN HOMOLOG) |
| 5189 | 18311 | 31277 | 1.81 | 3.4E-02 | AJ012469.1 | NT | Caenorhabditis elegans mRNA for DYS-1 protein, partial |
| 6983 | 18512 | 31604 | 4.68 | 3.4E-02 | U24393.1 | NT | Human lysyl oxidase-like protein gene, exon 3 |
| 8456 | 21537 | | 3.15 | 3.4E-02 | AI869629.1 | EST_HUMAN | h19d04.x1 NCI CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2433031 3' |
| 8947 | 22028 | 35667 | 1.18 | 3.4E-02 | AA684886.1 | EST_HUMAN | nu70708.s1 NCI CGAP_A1M1 Homo sapiens cDNA clone IMAGE:1216071 similar to contains Alu repetitive element contains element MER28 MER28 repetitive element; |
| 9118 | 22187 | | | | | | zq04f11.o1 Stratagene muscle 8937209 Homo sapiens cDNA clone IMAGE:628749 3' similar to TR:G1017425 G1017425 |
| 9880 | 23019 | | 5.28 | 3.4E-02 | AA194308.1 | EST_HUMAN | IPISGKLPKVTLSRDGVPKATMRFNTEITAENL TINLKESVTADAGRYEITANSSGTTKAFINIVLDRPG PPT GPVVISDITEESVTLKWEPPKYDGGSGQVNTYLLKRETSTAVW TEVSATVARTMMKMKL ...; |
| 383 | 13591 | | 0.66 | 3.4E-02 | AD92719.1 | EST_HUMAN | o28d08.x1 Soares_peratthyroid tumor_NbHPA Homo sapiens cDNA clone IMAGE:1683519 3' |
| 1193 | 14355 | 27413 | 6.8 | 3.3E-02 | AA398735.1 | EST_HUMAN | z176e08.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:728188 3' |
| 1899 | 14921 | 27804 | 12.43 | 3.3E-02 | AB035867.1 | NT | Gracilulus griseus CYP2A17 mRNA for cytochrome P450 2A17, complete cds |
| 1778 | 14927 | | 1.23 | 3.3E-02 | AF110783.1 | NT | Homo sapiens skeletal muscle LMA-protein 1 (FHL1) gene, complete cds |
| 2149 | 15285 | | 1.37 | 3.3E-02 | AF000700.1 | NT | Aquifex aedificus section 32 of 109 of the complete genome |
| 3445 | 16613 | 28631 | 2.02 | 3.3E-02 | R09112.1 | EST_HUMAN | y25e09.t1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:127888 5' |
| 4293 | 14921 | 27804 | 0.86 | 3.3E-02 | H02389.1 | EST_HUMAN | y35h02.r1 Soares placenta NB2HP Homo sapiens cDNA clone IMAGE:160771 5' |
| 4589 | 17726 | 30709 | 3.74 | 3.3E-02 | AF110783.1 | NT | Homo sapiens skeletal muscle LMA-protein 1 (FHL1) gene, complete cds |
| 6580 | 19722 | 33089 | 2.24 | 3.3E-02 | 6755862 | NT | Mus musculus tumor rejection antigen gp96 (Tra1), mRNA |
| 8560 | 19722 | 33100 | 26.73 | 3.3E-02 | BF245895.1 | EST_HUMAN | 601853910F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4073787 5' |
| 7677 | 19742 | 34223 | 26.73 | 3.3E-02 | BF245895.1 | EST_HUMAN | 601853910F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4073787 5' |
| 9523 | 22598 | 36157 | 0.63 | 3.3E-02 | AF124162.1 | NT | Nicotiana plumbaginifolia molybdopterin synthase sulphurylase (cysb) gene, partial cds |
| 9523 | 22598 | 36157 | 0.74 | 3.3E-02 | BF115621.1 | EST_HUMAN | 7m92d04.x1 NCI CGAP_Bm23 Homo sapiens cDNA clone IMAGE:3562423 3' |
| 9523 | 22598 | 36158 | 0.74 | 3.3E-02 | BF115621.1 | EST_HUMAN | 7m92d04.x1 NCI CGAP_Bm23 Homo sapiens cDNA clone IMAGE:3562423 3' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 9624 | 22679 | 36246 | 0.57 | 3.3E-02 | AA488202.1 | EST_HUMAN | ad0809.s1 Scores_NHFB Homo sapiens cDNA clone IMAGE:877673 3' similar to gb:X70944_cds1 MYOBLAST CELL SURFACE ANTIGEN 24.1D5 (HUMAN); |
| 9624 | 22679 | 36249 | 0.57 | 3.3E-02 | AA488202.1 | EST_HUMAN | ad0809.s1 Scores_NHFB Homo sapiens cDNA clone IMAGE:877673 3' similar to gb:X70944_cds1 MYOBLAST CELL SURFACE ANTIGEN 24.1D5 (HUMAN); |
| 11353 | 24444 | 36104 | 3.28 | 3.3E-02 | BF691107.1 | EST_HUMAN | ad0809.s1 Scores_NHFB Homo sapiens cDNA clone IMAGE:877673 3' similar to gb:X70944_cds1 MYOBLAST CELL SURFACE ANTIGEN 24.1D5 (HUMAN); |
| 12428 | 26303 | | 3.1 | 3.3E-02 | T86545.1 | EST_HUMAN | 60224717F1 NIH_MGC_82 Homo sapiens cDNA clone IMAGE:4332497 5' |
| 12557 | 25379 | | 1.6 | 3.3E-02 | T86545.1 | NT | ye4911.1 Scores_fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:121101 5' |
| 12591 | 25398 | | 1.85 | 3.3E-02 | MB1890.1 | NT | Mus musculus EIF-4H gene, partial cds; LIMK1 gene, complete cds; and ELN gene, partial cds |
| 134 | 13360 | 26394 | 1.79 | 3.2E-02 | AJ002005.1 | NT | Human Interleukin 11 (IL11) gene, complete mRNA |
| 1150 | 14314 | 27370 | 6.32 | 3.2E-02 | AF096275.1 | NT | Oryzobagus cuticulus gene encoding ileal sodium-dependent bile acid transporter |
| 1150 | 14314 | 27371 | 6.32 | 3.2E-02 | AF096275.1 | NT | Drosophila melanogaster heat shock protein 68 (hsp68) gene, hsp68d allele, complete cds |
| 1812 | 14961 | 28054 | 1.08 | 3.2E-02 | AF128894.1 | NT | Drosophila melanogaster heat shock protein 68 (hsp68) gene, hsp68d allele, complete cds |
| 2187 | 15322 | | 1.09 | 3.2E-02 | P28855 | SWISSPROT | Homo sapiens telomerase reverse transcriptase (TERT) gene, exons 7-16 and complete cds |
| 2902 | 13360 | 26394 | 0.87 | 3.2E-02 | AJ002005.1 | NT | LARGE TEGUMENT PROTEIN |
| 3204 | 16378 | 29389 | 13.21 | 3.2E-02 | BE887353.1 | EST_HUMAN | Oryzobagus cuticulus gene encoding ileal sodium-dependent bile acid transporter |
| 3806 | 16966 | 29970 | 0.94 | 3.2E-02 | AL163203.2 | NT | 601442431F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3948727 5' |
| 4334 | 17477 | | 16.42 | 3.2E-02 | X94768.1 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 4890 | 18020 | 31006 | 3.85 | 3.2E-02 | AF114182.1 | NT | H. sapiens RP3 gene (XLRP gene 3) |
| 5310 | 18427 | 31397 | 0.93 | 3.2E-02 | AW850159.1 | EST_HUMAN | Saxifraga nidifica maturase (matK) gene, chloroplast gene encoding chloroplast protein, partial cds |
| 5052 | 18846 | 32127 | 1.49 | 3.2E-02 | X68709.1 | NT | IL3-CT0219-271099-022-C04 CT0219 Homo sapiens cDNA |
| 5552 | 18846 | 32128 | 1.49 | 3.2E-02 | X68709.1 | NT | S. griseocarneum whiG-5tr gene |
| 6653 | 19812 | 33200 | 2.4 | 3.2E-02 | M32437.1 | NT | S. griseocarneum whiG-5tr gene |
| 6656 | 19815 | | 30.91 | 3.2E-02 | T89367.1 | EST_HUMAN | Radphycornavirus left junction in cell line W98.14 |
| 6743 | 19889 | 33290 | 3.7 | 3.2E-02 | AF173845.1 | NT | yc33h12.s1 Scores_fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:110087 3' similar to contains |
| 7938 | 20989 | 34469 | 0.92 | 3.2E-02 | 11424049 | NT | Alu repetitive element; contains LTR1 repetitive element |
| 8496 | 21577 | 35113 | 8.04 | 3.2E-02 | 6680565 | NT | Sagunus oedipus tissue kallikrein gene, complete cds |
| 9141 | 22220 | | 0.97 | 3.2E-02 | AF108718.1 | NT | Homo sapiens cytochrome P450, subfamily IIB (phenobarbital-inducible) (CYP2B), mRNA |
| 9426 | 22500 | 36065 | 1.2 | 3.2E-02 | A1278971.1 | EST_HUMAN | Mus musculus kinesin family member 3c (Kif3c), mRNA |
| 9426 | 22500 | 36066 | 1.2 | 3.2E-02 | A1278971.1 | EST_HUMAN | Homo sapiens chromosome 3 subtelomeric region |
| 10262 | 23297 | | 4.51 | 3.2E-02 | AA119785.1 | EST_HUMAN | qm17b04.x1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1882063 3' |
| 10569 | 23601 | 37207 | 1.11 | 3.2E-02 | UB6782.1 | NT | qm17b04.x1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1882063 3' |
| | | | | | | | zg54b12.s1 Scores_phleal_gland NHFG Homo sapiens cDNA clone IMAGE:397151 3' similar to |
| | | | | | | | gb:L08441 CYTOCHROME C OXIDASE POLYPEPTIDE II (HUMAN); |
| | | | | | | | Meoaea mulatta chemokine receptor CCR5 mRNA, complete cds |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 1289 | 14445 | | 1.92 | 3.1E-02 | 4503418 | NT | Homo sapiens dual specificity phosphatase 4 (DUSP4) mRNA |
| 1333 | 14490 | 27569 | 1.48 | 3.1E-02 | P18845 | SWISSPROT | NEURONAL ACETYLCHOLINE RECEPTOR PROTEIN, ALPHA-3 CHAIN PRECURSOR (GF-ALPHA-3) |
| 1940 | 15083 | 28184 | 1.28 | 3.1E-02 | 6871684 | NT | Mus musculus adaptor-related protein complex AP-3, delta subunit (Ap3d), mRNA |
| 5378 | 18580 | 31449 | 1.29 | 3.1E-02 | U78104.1 | NT | Human leukemia inhibitory factor receptor (LIFR) gene, promoter and partial exon 1 |
| 5476 | 18576 | | 2.6 | 3.1E-02 | AA278478.1 | EST_HUMAN | z881e08.r1 NC1_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:703858 5' |
| 5784 | 18556 | 32259 | 0.77 | 3.1E-02 | BF687742.1 | EST_HUMAN | 802066783F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4065789 5' |
| 8122 | 21204 | | 0.68 | 3.1E-02 | AV696098.1 | EST_HUMAN | AV696098 GKC Homo sapiens cDNA clone GKCAVH09 5' |
| 9142 | 22221 | 35784 | 0.48 | 3.1E-02 | BE965082.2 | EST_HUMAN | 601658870R1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3886281 3' |
| 9339 | 22415 | 35968 | 0.48 | 3.1E-02 | AB72302.1 | EST_HUMAN | wm57d09.x1 NC1_CGAP_U12 Homo sapiens cDNA clone IMAGE:2440049 3' |
| 10237 | 23272 | 36864 | 2.67 | 3.1E-02 | AF034779.1 | NT | Enterococcus faecalis surface protein precursor, gene, complete cds |
| 1652 | 14905 | | 2.41 | 3.0E-02 | AF187125.1 | NT | Pitykates minutus cytochrome oxidase I gene, partial cds; mitochondrial gene for mitochondrial product |
| 2682 | 15775 | 28888 | 1.08 | 3.0E-02 | AA402242.1 | EST_HUMAN | z63d03.r1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:727263 5' |
| 3743 | 16904 | 28808 | 2.82 | 3.0E-02 | AF247844.1 | NT | Pseudomonas fluorescens family II aminotransferase gene, complete cds |
| 3839 | 16998 | | 0.93 | 3.0E-02 | AW820223.1 | EST_HUMAN | QV2-ST0296-150200-040-e09 ST0296 Homo sapiens cDNA |
| 4058 | 17214 | | 0.94 | 3.0E-02 | AA364003.1 | EST_HUMAN | EST74530 Pithecel gland II Homo sapiens cDNA 5' end |
| 5164 | 18288 | 31250 | 8.17 | 3.0E-02 | AF281074.1 | NT | Homo sapiens neuropilin 2 (NRP2) gene, complete cds, alternatively spliced |
| 6164 | 18286 | 31251 | 8.17 | 3.0E-02 | AF281074.1 | NT | Homo sapiens neuropilin 2 (NRP2) gene, complete cds, alternatively spliced |
| 5507 | 18700 | | 3.21 | 3.0E-02 | AB046783.1 | NT | Homo sapiens mRNA for KIAA1573 protein, partial cds |
| 6384 | 19553 | 32910 | 0.67 | 3.0E-02 | NS9815.1 | EST_HUMAN | z839a10.r1 Soares fetal liver spleen 1NLS Homo sapiens cDNA clone IMAGE:294905 5' similar to contains element TAR1 repetitive element |
| 6384 | 19553 | 32911 | 0.67 | 3.0E-02 | NS9815.1 | EST_HUMAN | z839a10.r1 Soares fetal liver spleen 1NLS Homo sapiens cDNA clone IMAGE:294905 5' similar to contains element TAR1 repetitive element |
| 6929 | 20244 | 33677 | 2.87 | 3.0E-02 | AJ242906.1 | NT | Cyprinus carpio mRNA for inducible nitric oxide synthase (iNOS) gene |
| 7047 | 20100 | 33516 | 2.9 | 3.0E-02 | BE889948.1 | EST_HUMAN | 601512206F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913848 5' |
| 7047 | 20100 | 33517 | 2.9 | 3.0E-02 | BE889948.1 | EST_HUMAN | 601512206F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913848 5' |
| 7218 | 20083 | 33497 | 1.92 | 3.0E-02 | AF213884.1 | NT | Homo sapiens nuclear factor of kappa light polypeptide gene enhancer in B-cells 1 (NFKB1) gene, complete cds |
| 7218 | 20083 | 33498 | 1.92 | 3.0E-02 | AF213884.1 | NT | Homo sapiens nuclear factor of kappa light polypeptide gene enhancer in B-cells 1 (NFKB1) gene, complete cds |
| 7380 | 20458 | 33921 | 1.22 | 3.0E-02 | M66524.1 | NT | Human dystrophin gene |
| 8317 | 21398 | | 0.48 | 3.0E-02 | BF079706.1 | EST_HUMAN | 602154364F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4295654 5' |
| 8821 | 21900 | 35439 | 0.55 | 3.0E-02 | BE512670.1 | EST_HUMAN | 601171826F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:3645047 5' |
| 8842 | 21821 | 35469 | 0.74 | 3.0E-02 | BF353889.1 | EST_HUMAN | IL5-HT0704-290600-108-c04 HT0704 Homo sapiens cDNA |

Page 158 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8993 | 22072 | | 1.93 | 3.0E-02 | AF275654.1 | NT | Onlithorhynchus enalinus coagulation factor X mRNA, complete cds |
| 10877 | 23711 | 37319 | 2.03 | 3.0E-02 | AE001797.1 | NT | Thermotoga maritima section 109 of 138 of the complete genome |
| 10770 | 23803 | 37426 | 0.47 | 3.0E-02 | Z21211.1 | EST_HUMAN | HSAAADTHS TEST1, Human adult Testis tissue Homo sapiens cDNA clone cam test244 (b) |
| 11808 | 24586 | 38243 | 2.26 | 3.0E-02 | M81367.1 | NT | Human coagulation factor VII (F7) gene exon 1 and factor X (F10) gene, exon 1 |
| 11889 | 24974 | 38578 | 7.11 | 3.0E-02 | AA483218.1 | EST_HUMAN | ne87604.s1 NCL_CGAP_Kd1 Homo sapiens cDNA clone IMAGE:911263 |
| 12536 | 26168 | 31556 | 1.95 | 3.0E-02 | R32019.1 | EST_HUMAN | yh63d04.e1 Scores placenta NB2HP Homo sapiens cDNA clone IMAGE:134407 3' |
| 12943 | 26621 | | 11.62 | 3.0E-02 | AW895595.1 | EST_HUMAN | QV4-NN0038-270400-187-105 NN0038 Homo sapiens cDNA |
| 12989 | 26161 | | 4.97 | 3.0E-02 | AF048887.1 | NT | Rattus norvegicus UDP-Gal:glucosylceramide beta-1,4-galactosyltransferase mRNA, complete cds |
| 3850 | 16813 | 29826 | 0.8 | 2.9E-02 | X55294.1 | NT | Sheep gene for ultra high-sulphur keratin protein |
| 4039 | 17195 | 30206 | 0.81 | 2.9E-02 | H72805.1 | EST_HUMAN | yu07e10.r1 Scores fetal liver spleen 1NLS Homo sapiens cDNA clone IMAGE:233130 5' |
| 6188 | 19384 | 32712 | 1.39 | 2.9E-02 | AF060221.1 | NT | Sus scrofa deoxyribonuclease II mRNA, complete cds |
| 6421 | 19590 | 32955 | 6.58 | 2.9E-02 | BF032233.1 | EST_HUMAN | 601452801F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3856508 5' |
| 7398 | 20478 | 33943 | 9.95 | 2.9E-02 | BE271437.1 | EST_HUMAN | 601140729F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3049830 5' |
| 7584 | 20658 | 34133 | 0.65 | 2.9E-02 | D29214.1 | EST_HUMAN | HUMNK282 Human epidermal keratinocyte Homo sapiens cDNA clone 262 |
| 8187 | 21269 | 34783 | 0.82 | 2.9E-02 | AF128278.1 | NT | Buchnera aphidicola natural-host Schlechtendalla chinensis gluconate-6-phosphate dehydrogenase (grd) gene, partial cds |
| 8187 | 21269 | 34794 | 0.82 | 2.9E-02 | AF128278.1 | NT | Buchnera aphidicola natural-host Schlechtendalla chinensis gluconate-6-phosphate dehydrogenase (grd) gene, partial cds |
| 8859 | 22889 | 36482 | 2.14 | 2.9E-02 | AW875979.1 | EST_HUMAN | CM3-PT0014-071289-051-c04 PT0014 Homo sapiens cDNA |
| 8859 | 22889 | 36483 | 2.14 | 2.9E-02 | AW875979.1 | EST_HUMAN | CM3-PT0014-071289-051-c04 PT0014 Homo sapiens cDNA |
| 10078 | 23116 | | 0.65 | 2.8E-02 | AW875997.1 | EST_HUMAN | EST388708 MAGE resequences, MAGN Homo sapiens cDNA |
| 10553 | 23588 | 37106 | 1.25 | 2.8E-02 | AF000064.1 | NT | Aeropyrum pernix genomic DNA, section 777 |
| 11303 | 16813 | 29828 | 1.44 | 2.8E-02 | X65294.1 | NT | Sheep gene for ultra high-sulphur keratin protein |
| 12538 | 26057 | | 1.35 | 2.8E-02 | AU135817.1 | EST_HUMAN | AUT35817 PLACE1 Homo sapiens cDNA clone PLACE1002882 5' |
| 579 | 13771 | | 0.76 | 2.8E-02 | AW970153.1 | EST_HUMAN | EST382234 MAGE resequences, MAGK Homo sapiens cDNA |
| 3453 | 16820 | 29839 | 1.2 | 2.8E-02 | AF066083.1 | NT | Homo sapiens retinal fascic (FSCN2) gene, exon 2 |
| 3453 | 16820 | 29840 | 1.2 | 2.8E-02 | AF066083.1 | NT | Homo sapiens retinal fascic (FSCN2) gene, exon 2 |
| 4430 | 17570 | | 0.76 | 2.8E-02 | AF066083.1 | NT | Homo sapiens retinal fascic (FSCN2) gene, exon 2 |
| 5605 | 18900 | 31868 | 11 | 2.8E-02 | BE741083.1 | EST_HUMAN | Rattus norvegicus microtubule-associated protein tau (Mapt), mRNA |
| 6948 | 20261 | 33699 | 1.08 | 2.8E-02 | I78960.1 | EST_HUMAN | 601594078F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3048087 5' |
| 8523 | 21604 | 35142 | 1.67 | 2.8E-02 | AJ005920.1 | NT | y421b08.r1 Scores fetal liver spleen 1NLS Homo sapiens cDNA clone IMAGE:108865 5' |
| 9219 | 22297 | 35840 | 0.76 | 2.8E-02 | AA280782.1 | EST_HUMAN | Craterostigma plantaginum mRNA for homeodomain leucine zipper protein (hb-1) |
| 9408 | 22483 | 36047 | 1.41 | 2.8E-02 | AF187872.1 | NT | zs69a08.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:711486 5' |
| | | | | | | | Cavia porcellus inwardly-rectifying potassium channel Kir2.1 (KCNJ2) gene, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 8513 | 22578 | 36144 | 0.76 | 2.8E-02 | AE001092.1 | NT | Archaeoglobus fulgidus section 15 of 172 of the complete genome |
| 8674 | 22636 | 36207 | 0.47 | 2.8E-02 | J05109.1 | NT | T.thermophila calcium-binding 25 kDa (TCBP 26) protein gene, complete cds |
| 8674 | 22638 | 36208 | 0.47 | 2.8E-02 | J05109.1 | NT | T.thermophila calcium-binding 25 kDa (TCBP 26) protein gene, complete cds |
| | | | | | | | Human germ-line T-cell receptor beta chain Dopamine-beta-hydroxylase-like, TRY1, TRY2, TRY3, TCRBV27S1P, TCRBV28S1A2N1T, TCRBV6S1A1T, TCRBV7S1A1N2T, TCRBV6S1A1T, TCRBV13S3, TCRBV6S7P, TCRBV7S3A2T, TCRBV13S2A1T, TCRBV6S2A2PT, TCRBV7S2A1N4T, TCRBV13S9/13S> |
| 1518 | 14671 | 27753 | 0.96 | 2.7E-02 | U66059.1 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 6 |
| 3618 | 16384 | 26695 | 1.99 | 2.7E-02 | AL161494.2 | NT | y86h12.1 Soares_multiple_sclerosis_2NbhMSP Homo sapiens cDNA clone IMAGE:280487 5' |
| 4319 | 17462 | 30447 | 1.93 | 2.7E-02 | N47258.1 | EST_HUMAN | y86h12.1 Soares_multiple_sclerosis_2NbhMSP Homo sapiens cDNA clone IMAGE:280487 5' |
| 4319 | 17462 | 30448 | 1.93 | 2.7E-02 | N47258.1 | EST_HUMAN | 60186481F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4083075 5' |
| 5362 | 18555 | 31432 | 0.8 | 2.7E-02 | BF246672.1 | EST_HUMAN | yf33d09.1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:128657 5' similar to SP-JC2204 JC2204 TISSUE FACTOR PATHWAY INHIBITOR - RHESUS ; |
| 6557 | 18755 | 31793 | 1.43 | 2.7E-02 | R12245.1 | EST_HUMAN | T.aestivum pT120 mRNA for wheat type V thionin |
| 6022 | 19205 | 32525 | 0.69 | 2.7E-02 | X61670.1 | NT | A.bisporus pgkA gene |
| 6734 | 19890 | | 1.02 | 2.7E-02 | X97680.1 | NT | cl86h03.s1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:1624661 3' |
| 7213 | 20078 | 33491 | 1.92 | 2.7E-02 | AA983571.1 | EST_HUMAN | contains Alu repetitive element; |
| 8549 | 21630 | | 1.36 | 2.7E-02 | A1377036.1 | EST_HUMAN | transmembrane secretory component [human, leukocytes, Genomic, 657 nt, segment 4 of 11] |
| 8816 | 21895 | 35434 | 0.55 | 2.7E-02 | S43442.1 | NT | Homo sapiens chromosome 21 segment HS21C082 |
| 885 | 13776 | 26786 | 2.52 | 2.6E-02 | AL163282.2 | NT | IL3-CT0219-280100-062-C09 C10219 Homo sapiens cDNA |
| 1399 | 14653 | | 0.99 | 2.6E-02 | AW850515.1 | EST_HUMAN | eb02b02.01 Strabagene fetal retina 037202 Homo sapiens cDNA clone IMAGE:839595 3' |
| 2439 | 15567 | 28694 | 2.6 | 2.6E-02 | AA480021.1 | EST_HUMAN | Mus musculus histidine rich calcium binding protein (Hrc), mRNA |
| 2441 | 15569 | 28696 | 4.45 | 2.6E-02 | 6754241 | NT | Mus musculus histidine rich calcium binding protein (Hrc), mRNA |
| 2441 | 15569 | 28697 | 4.45 | 2.6E-02 | 6754241 | NT | Mus musculus histidine rich calcium binding protein (Hrc), mRNA |
| 2992 | 16158 | | 2.07 | 2.6E-02 | AF109908.1 | NT | and smRNP genes, complete cds; GTA gene, partial cds; and unknown genes |
| 5025 | 18154 | 31131 | 3.89 | 2.6E-02 | L12032.1 | NT | Chicken dorelin-1 mRNA, complete cds |
| 5176 | 18268 | 31261 | 1.22 | 2.6E-02 | AE002014.1 | NT | Deinococcus radiodurans R1 section 151 of 229 of the complete chromosome 1 |
| | | | | | | | xa52b04.x1 NCI_CGAP_Sar4 Homo sapiens cDNA clone IMAGE:2670383 3' similar to SW:Y069_HUMAN |
| 5203 | 18324 | 31293 | 2.54 | 2.6E-02 | AW241154.1 | EST_HUMAN | Q15041 HYPOTHETICAL PROTEIN KIAA0069 ; |
| 6011 | 19195 | | 2.94 | 2.6E-02 | AL161663.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 63 |
| 6349 | 19519 | | 6.85 | 2.6E-02 | AI206030.1 | EST_HUMAN | qg27f11.x1 NCI_CGAP_Ki63 Homo sapiens cDNA clone IMAGE:1762317 3' |
| 8555 | 19717 | 33093 | 2 | 2.6E-02 | BE621748.1 | EST_HUMAN | 601493473T1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3895578 3' |
| 6960 | 20194 | 33619 | 0.83 | 2.6E-02 | Z89064.1 | NT | Vaccinia virus ORF1L, strain Wyeth |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6966 | 20194 | 33620 | 0.83 | 2.6E-02 | Z98064.1 | NT | Vaccinia virus ORF1L, strain Wyeth |
| 7050 | 20103 | 33520 | 5.63 | 2.6E-02 | 698127.1 | NT | Rattus norvegicus Nerve growth factor receptor, fast (Ngfr), mRNA |
| 7449 | 20526 | 33999 | 0.85 | 2.6E-02 | P21894 | SWISSPROT | ALANYL-TRNA SYNTHETASE (ALANINE-TRNA LIGASE) (ALARS) |
| 8703 | 21783 | 35316 | 0.73 | 2.6E-02 | AA660946.1 | EST_HUMAN | ak22604.s1 Scores_testis_NHT Homo sapiens cDNA clone IMAGE:1408719 3' |
| 8560 | 22702 | 36268 | 1.24 | 2.6E-02 | 11432020 | NT | Homo sapiens KIAA1070 protein (KIAA1070), mRNA |
| 9915 | 22955 | 36541 | 0.78 | 2.6E-02 | AF114952.1 | NT | Saccharomyces cerevisiae NRRL Y-12839(T) ATP synthase subunit 9 (ATP9) gene, mitochondrial gene encoding mitochondrial protein, complete cds |
| 9915 | 22955 | 36542 | 0.78 | 2.6E-02 | AF114952.1 | NT | Saccharomyces cerevisiae NRRL Y-12839(T) ATP synthase subunit 9 (ATP9) gene, mitochondrial gene encoding mitochondrial protein, complete cds |
| 10814 | 23648 | 37257 | 5.37 | 2.6E-02 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 11870 | 24747 | 38647 | 1.59 | 2.6E-02 | AA278951.1 | EST_HUMAN | zs84c02.f1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:704162 5' |
| 11951 | 24949 | 38647 | 1.35 | 2.6E-02 | AW500547.1 | EST_HUMAN | U141F-BNO-ek-10-0.U141 NIH_MGC_60 Homo sapiens cDNA clone IMAGE:3077468 5' |
| 12480 | 26160 | 31553 | 1.43 | 2.6E-02 | BF343827.1 | EST_HUMAN | 602016501.F1 NCI_CGAP_Brm84 Homo sapiens cDNA clone IMAGE:4160944 5' |
| 12583 | 25392 | | 1.32 | 2.6E-02 | 11422836 | NT | Homo sapiens hypothetical protein FLJ10724 (FLJ10724), mRNA |
| 12947 | 25658 | | 1.39 | 2.6E-02 | R43878.1 | EST_HUMAN | yc86f07.s1 Scores Infant brain 1N1B Homo sapiens cDNA clone IMAGE:22845 3' similar to contains DBR repetitive element: |
| 546 | 13738 | 26762 | 1.75 | 2.5E-02 | A1793130.1 | EST_HUMAN | cn26106.y5 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1557827 5' |
| 546 | 13738 | 26763 | 1.76 | 2.5E-02 | A1793130.1 | EST_HUMAN | cn26106.y5 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1557827 5' |
| 832 | 14010 | 27068 | 9.64 | 2.5E-02 | BE974314.1 | EST_HUMAN | 601860305R2 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:3950665 3' |
| 892 | 14068 | 27133 | 5.83 | 2.5E-02 | BE974314.1 | EST_HUMAN | 601860305R2 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:3950665 3' |
| 2821 | 15935 | | 2.53 | 2.5E-02 | U12871.1 | NT | Rattus norvegicus rapphilin-3A mRNA, complete cds |
| 3021 | 16197 | 29219 | 2.95 | 2.5E-02 | X98997.1 | NT | H. carterae mRNA for fucoxanthin chlorophyll a/c binding protein, Fcp1 |
| 3021 | 16197 | 29220 | 2.85 | 2.5E-02 | X98997.1 | NT | H. carterae mRNA for fucoxanthin chlorophyll a/c binding protein, Fcp1 |
| 4156 | 18468 | 30302 | 0.92 | 2.6E-02 | BE701165.1 | EST_HUMAN | PM2-NN0128-080700-001-412 NN0128 Homo sapiens cDNA |
| 4168 | 18468 | 30303 | 0.92 | 2.5E-02 | BE701165.1 | EST_HUMAN | PM2-NN0128-080700-001-412 NN0128 Homo sapiens cDNA |
| 4322 | 17485 | 30460 | 4.66 | 2.6E-02 | AW592114.1 | EST_HUMAN | h38h08.x1 Scores_NFL_Y_CBG_S1 Homo sapiens cDNA clone IMAGE:2834016 3' |
| 5830 | 18021 | 32327 | 0.72 | 2.5E-02 | A1732776.1 | EST_HUMAN | zs83c10.x5 Scores ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:810354 3' |
| 6322 | 19494 | | 4.88 | 2.5E-02 | BE670128.1 | EST_HUMAN | 7630c09.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3284008 3' similar to contains L1.11 L1 repetitive element: |
| 6338 | 18508 | | 3.72 | 2.6E-02 | BE746888.1 | EST_HUMAN | 601579393.F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3828064 6' |
| 6488 | 19633 | 32894 | 0.8 | 2.5E-02 | L28029.1 | NT | Chlamydomonas reinhardtii VSP-3 mRNA, complete cds |
| 7843 | 20838 | 34400 | 1.72 | 2.6E-02 | BF526722.1 | EST_HUMAN | 602070562.F1 NCI_CGAP_Brm84 Homo sapiens cDNA clone IMAGE:4213408 5' |
| 7843 | 20838 | 34401 | 1.72 | 2.6E-02 | BF526722.1 | EST_HUMAN | 602070562.F1 NCI_CGAP_Brm84 Homo sapiens cDNA clone IMAGE:4213408 5' |
| 8008 | 21058 | 34570 | 0.64 | 2.6E-02 | AF129498.1 | NT | Chlamydomonas reinhardtii class II DNA photolyase (PHR2) gene, complete cds |

Page 161 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8167 | 21249 | 34768 | 0.6 | 2.5E-02 | BE252469.1 | EST_HUMAN | 601108291F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3344278 5' |
| 8025 | 22104 | 36645 | 0.92 | 2.5E-02 | Q87173 | SWISSPROT | CHORDIN PRECURSOR (ORGANIZER-SPECIFIC SECRETED DORSALIZING FACTOR) |
| 9184 | 22242 | 36785 | 0.57 | 2.5E-02 | AW025821.1 | EST_HUMAN | wu08c10.x1 NCL_GAP_GC8 Homo sapiens cDNA clone IMAGE:2616370 3' |
| 10271 | 23305 | | 0.63 | 2.5E-02 | X71303.1 | NT | D. radicum 28S ribosomal RNA, D2 domain |
| 10810 | 23843 | 37466 | 0.65 | 2.5E-02 | A147615.1 | EST_HUMAN | q622a08.x1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:1698982 3' |
| 11048 | 24125 | 37759 | 1.71 | 2.5E-02 | Q10335 | SWISSPROT | HYPOTHETICAL 46.7 KD PROTEIN C19G10.05 IN CHROMOSOME 1 |
| 11048 | 24125 | 37760 | 1.71 | 2.5E-02 | Q10335 | SWISSPROT | HYPOTHETICAL 46.7 KD PROTEIN C19G10.05 IN CHROMOSOME 1 |
| | | | | | | | Mus musculus major histocompatibility locus class II region: major histocompatibility protein class II alpha chain (I-Aalpha) and major histocompatibility protein class II beta chain (I-Ebeta) genes, complete cds; butyrophilin-like (NG9), butyrophilin-like |
| 11120 | 24182 | | 2.93 | 2.5E-02 | AF060157.1 | NT | Homo sapiens gene for LECT2, complete cds |
| 12065 | 26046 | | 1.87 | 2.5E-02 | AB007546.1 | NT | Homo sapiens similar to ALEX3 protein (H. sapiens) (LOC83634), mRNA |
| 12419 | 26072 | | 2.17 | 2.6E-02 | 11420078 | NT | Homo sapiens mitogen-activated protein kinase kinase kinase 13 (MAP3K13), mRNA |
| 12821 | 26934 | | 1.29 | 2.5E-02 | 11433220 | NT | Homo sapiens discoidin domain containing protein kinase Mica (mika) gene, complete cds |
| 12716 | 26476 | | 1.83 | 2.5E-02 | U60189.1 | NT | Dicotyledonous discoidin domain containing protein kinase Mica (mika) gene, complete cds |
| 12760 | 25497 | 32032 | 1.58 | 2.5E-02 | BE973327.1 | EST_HUMAN | 601652365R2 NIH_MGC_82 Homo sapiens cDNA clone IMAGE:3935513 3' |
| 178 | 13401 | 28431 | 1.44 | 2.4E-02 | A1378882.1 | EST_HUMAN | tc72c07.x1 Soares_NbHPU_S1 Homo sapiens cDNA clone IMAGE:2070168 3' |
| 1828 | 14780 | 27865 | 1.89 | 2.4E-02 | H65984.1 | EST_HUMAN | y775f11.r1 Soares_fetal_liver_spleen_1NPLS Homo sapiens cDNA clone IMAGE:211149 5' |
| 2102 | 16054 | 28363 | 1.38 | 2.4E-02 | P01901 | SWISSPROT | H-2 CLASS I HISTOCOMPATIBILITY ANTIGEN, K-B ALPHA CHAIN PRECURSOR (H-2K(B)) |
| 2102 | 16054 | 28364 | 1.38 | 2.4E-02 | P01901 | SWISSPROT | H-2 CLASS I HISTOCOMPATIBILITY ANTIGEN, K-B ALPHA CHAIN PRECURSOR (H-2K(B)) |
| 4488 | 17628 | 30609 | 1.69 | 2.4E-02 | J05110.1 | NT | T. thermophila calcium-binding 25 kDa (TCBP 25) protein mRNA, complete cds |
| 6344 | 19514 | 32871 | 0.86 | 2.4E-02 | W88680.1 | EST_HUMAN | zh63h04.o1 Soares_fetal_liver_spleen_1NPLS_S1 Homo sapiens cDNA clone IMAGE:416791 3' |
| 7370 | 20449 | 33812 | 1.2 | 2.4E-02 | Z20573.1 | EST_HUMAN | HSAAACKVX.T, Human adult Rhabdomyosarcoma cell-line Homo sapiens cDNA |
| 7386 | 20484 | 33928 | 1.11 | 2.4E-02 | X12925.1 | NT | Rat gene for uncoupling protein (UCP) |
| 7386 | 20484 | 33929 | 1.11 | 2.4E-02 | X12925.1 | NT | Rat gene for uncoupling protein (UCP) |
| 8074 | 21156 | | 0.76 | 2.4E-02 | AW813007.1 | EST_HUMAN | RC3-STO198-230300-019-R08 ST0198 Homo sapiens cDNA |
| 8129 | 21211 | | 0.57 | 2.4E-02 | M16780.1 | NT | Human retrotransposon 3' long terminal repeat |
| 8636 | 21716 | | 0.57 | 2.4E-02 | H78376.1 | EST_HUMAN | yw12c05.s1 Soares_fetal_liver_spleen_1NPLS Homo sapiens cDNA clone IMAGE:233570 3' similar to contains |
| 8728 | 21808 | 35344 | 11.69 | 2.4E-02 | N69442.1 | EST_HUMAN | Alu repetitive element; contains A3R repetitive element; |
| 9187 | 22285 | 35806 | 0.78 | 2.4E-02 | AE001125.1 | NT | za35g11.s1 Soares_fetal_liver_spleen_1NPLS Homo sapiens cDNA clone IMAGE:294596 3' similar to |
| | | | | | | | gb K02909 RA TSR7K Rat (RNA); contains A3R b1 A3R repetitive element; |
| | | | | | | | Borrelia burgdorferi (section 11 of 70) of the complete genome |
| 9211 | 22289 | 35831 | 0.81 | 2.4E-02 | AA925660.1 | EST_HUMAN | zu91c06.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:745354 3' similar to gb:J04422 ISLET |
| | | | | | | | AMYLOID POLYPEPTIDE PRECURSOR (HUMAN); contains Alu repetitive element; contains element XTR |
| | | | | | | | XTR repetitive element |

Page 162 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 9893 | 22933 | 36516 | 0.55 | 2.4E-02 | AF124160.1 | NT | Arabidopsis thaliana molybdopterin synthase sulphurase (mox5) gene, complete cds |
| 9893 | 22933 | 36517 | 0.55 | 2.4E-02 | AF124160.1 | NT | Arabidopsis thaliana molybdopterin synthase sulphurase (mox5) gene, complete cds |
| 10011 | 23049 | 36843 | 2.75 | 2.4E-02 | AV862864.1 | EST_HUMAN | AV862864 GKX Homo sapiens cDNA clone IMAGE:295284 5' |
| 10186 | 23223 | 36817 | 2.82 | 2.4E-02 | AA483894.1 | EST_HUMAN | h107b12.e1 NCL CGAP Thy1 Homo sapiens cDNA clone IMAGE:943583 similar to contains Alu repetitive element; contains element PTR5 repetitive element |
| 10839 | 23872 | | 0.5 | 2.4E-02 | BE387111.1 | EST_HUMAN | 801274962F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3618602 5' |
| 11874 | 24862 | 38557 | 2.45 | 2.4E-02 | AF109905.1 | NT | Mus musculus major histocompatibility locus class III regions Hsc701 gene, partial cds; smRNP, G7A, NG23, MutS homolog, CLCP, NG24, NG25, and NG28 genes, complete cds; and unknown genes |
| 11874 | 24862 | 38558 | 2.45 | 2.4E-02 | AF109905.1 | NT | Mus musculus major histocompatibility locus class III regions Hsc701 gene, partial cds; smRNP, G7A, NG23, MutS homolog, CLCP, NG24, NG25, and NG28 genes, complete cds; and unknown genes |
| 12210 | 25163 | | 3.88 | 2.4E-02 | 9627809 | NT | Bacteriophage bIL67, complete genome |
| 12362 | 25260 | 32110 | 4.45 | 2.4E-02 | 6756363 | NT | Mus musculus DinB homolog 1 (E. coli) (Dinb1), mRNA |
| 12478 | 25330 | 32055 | 1.38 | 2.4E-02 | U78167.1 | NT | Rattus norvegicus cAMP-regulated guanine nucleotide exchange factor 1 (cAMP-GEF1) mRNA, complete cds |
| 12478 | 25330 | 32098 | 1.38 | 2.4E-02 | U78167.1 | NT | Rattus norvegicus cAMP-regulated guanine nucleotide exchange factor 1 (cAMP-GEF1) mRNA, complete cds |
| 12668 | 25445 | | 10.87 | 2.4E-02 | AB008569.1 | NT | Ceenorhabditis elegans mRNA for iron-sulfur subunit of mitochondrial succinate dehydrogenase, complete cds |
| 12697 | 25464 | | 1.28 | 2.4E-02 | N42980.1 | EST_HUMAN | W08a06.r1 Soares melanocyte 21bHM Homo sapiens cDNA clone IMAGE:270610 5' |
| 12883 | 25900 | 31858 | 1.25 | 2.4E-02 | AA179693.1 | EST_HUMAN | 2p13h01.r1 Strategene fetal retina 937202 Homo sapiens cDNA clone IMAGE:608361 5' |
| 1921 | 15064 | | 5.25 | 2.3E-02 | W05340.1 | EST_HUMAN | z884g08.r1 Soares_fetal_lung_NHL19W Homo sapiens cDNA clone IMAGE:295284 5' |
| 1936 | 15079 | | 16.26 | 2.3E-02 | U94165.1 | NT | 4 Homo sapiens mammary tumor-associated protein INT8 (INT6) gene, exon 4 |
| 2065 | 15205 | 28321 | 0.89 | 2.3E-02 | AW787355.1 | EST_HUMAN | CM2-UM0038-290400-172-b11 UM0038 Homo sapiens cDNA |
| 2426 | 15554 | 28681 | 2.68 | 2.3E-02 | Z74293.1 | NT | S.cerevisiae chromosome IV reading frame ORF YDL245c |
| 3773 | 16934 | 29940 | 7.02 | 2.3E-02 | Z20377.1 | EST_HUMAN | HSAAACADH P, Human foetal Brain Whole tissue Homo sapiens cDNA |
| 3807 | 16967 | | 0.67 | 2.3E-02 | L23429.1 | NT | Canis beta-galactosidase-binding lectin (LGAL33) mRNA, 3'end |
| 4287 | 17412 | 30398 | 1.17 | 2.3E-02 | L24799.1 | NT | Gallus gallus connexin 45.8 (Cx45.8) gene, complete cds |
| 4287 | 17412 | 30399 | 1.17 | 2.3E-02 | L24799.1 | NT | Gallus gallus connexin 45.8 (Cx45.8) gene, complete cds |
| 4540 | 17678 | 30660 | 1.08 | 2.3E-02 | AW898107.1 | EST_HUMAN | CM4-NN0080-290400-160-b04 NN0080 Homo sapiens cDNA |
| 4571 | 17709 | 30689 | 0.6 | 2.3E-02 | BE93225.1 | EST_HUMAN | CM3-MT0118-010800-318-g07 MT0118 Homo sapiens cDNA |
| 4571 | 17709 | 30690 | 0.6 | 2.3E-02 | BE93225.1 | EST_HUMAN | CM3-MT0118-010800-318-g07 MT0118 Homo sapiens cDNA |
| 4572 | 18469 | 30691 | 1.2 | 2.3E-02 | AW593693.1 | EST_HUMAN | xs25408.x1 NCL CGAP_U02 Homo sapiens cDNA clone IMAGE:2770871 3' |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 4572 | 18469 | 30692 | 1.2 | 2.3E-02 | AW593693.1 | EST_HUMAN | 3x25d08.x1 NCL_CGAP_U2 Homo sapiens cDNA clone IMAGE:270671 3' |
| 4717 | 17852 | 30836 | 3.01 | 2.3E-02 | BF026487.1 | EST_HUMAN | 601672279F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3955386 5' |
| 4717 | 17852 | 30836 | 3.01 | 2.3E-02 | BF026487.1 | EST_HUMAN | 601672279F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3955386 5' |
| 5144 | 18267 | 31237 | 0.9 | 2.3E-02 | AW044307.1 | EST_HUMAN | RC2-CN0051-280100-011-e07 CN0051 Homo sapiens cDNA |
| 5265 | 18384 | 31349 | 0.62 | 2.3E-02 | AF257110.1 | NT | Rattus norvegicus guanine nucleotide binding protein gamma subunit 11 mRNA, complete cds |
| 5265 | 18384 | 31350 | 0.62 | 2.3E-02 | AF257110.1 | NT | Rattus norvegicus guanine nucleotide binding protein gamma subunit 11 mRNA, complete cds |
| 5491 | 18690 | 31707 | 3.88 | 2.3E-02 | U86303.1 | NT | Caulobacter crescentus topoisomerase IV ParE subunit (parE) gene, complete cds, and propionyl-CoA carboxylase beta chain (pcdB) homolog gene, partial cds |
| 6365 | 19535 | 32804 | 0.82 | 2.3E-02 | BF106464.1 | EST_HUMAN | 601822821R1 NIH_MGC_77 Homo sapiens cDNA clone IMAGE:4042829 3' |
| 6755 | 19911 | 33306 | 4 | 2.3E-02 | AL161605.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 17 |
| 7119 | 18545 | 31456 | 0.69 | 2.3E-02 | BE141475.1 | EST_HUMAN | MRO-HT0090-011089-002-c08 HT0090 Homo sapiens cDNA |
| 7619 | 20689 | 34164 | 0.63 | 2.3E-02 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 8060 | 21143 | 34661 | 4.52 | 2.3E-02 | U63610.1 | NT | Human plectin (PLECT) gene, exons 9-32, and complete cds |
| 8667 | 21747 | 35285 | 1.12 | 2.3E-02 | AJ298105.1 | NT | Homo sapiens PDX1 gene for lipoyl-containing component X, exons 1-11 |
| 8667 | 21747 | 35286 | 1.12 | 2.3E-02 | AJ298105.1 | NT | Homo sapiens PDX1 gene for lipoyl-containing component X, exons 1-11 |
| 8894 | 21673 | 35509 | 0.76 | 2.3E-02 | AI685380.1 | EST_HUMAN | w678h10.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2302147 3' |
| 8894 | 21673 | 35510 | 0.75 | 2.3E-02 | AI685380.1 | EST_HUMAN | w678h10.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2302147 3' |
| 9338 | 22414 | 35987 | 0.84 | 2.3E-02 | P41998 | SWISSPROT | HYPOPHETICAL 55.6 KO PROTEIN B0280.5 IN CHROMOSOME III PRECURSOR |
| 10063 | 23101 | 36704 | 0.94 | 2.3E-02 | P50532 | SWISSPROT | CHROMOSOME ASSEMBLY PROTEIN XCAP-C |
| 10236 | 23271 | 36862 | 1.44 | 2.3E-02 | AE000189.1 | NT | Escherichia coli K-12 MG1655 section 89 of 400 of the complete genome |
| 10238 | 23271 | 36863 | 1.44 | 2.3E-02 | AE000189.1 | NT | Escherichia coli K-12 MG1655 section 89 of 400 of the complete genome |
| 11022 | 24101 | 37739 | 2.38 | 2.3E-02 | P08540 | SWISSPROT | GLUCOAMYLASE S1/S2 PRECURSOR (GLUCAN 1,4-ALPHA-GLUCOSIDASE) (1,4-ALPHA-D-GLUCAN GLUCOHYDROLASE) |
| 12338 | 25919 | | 3.61 | 2.3E-02 | BE278331.1 | EST_HUMAN | 601179958F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3546567 5' |
| 12801 | 25535 | 32011 | 1.78 | 2.3E-02 | BF528462.1 | EST_HUMAN | 602043928F1 NCL_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4181454 5' |
| 12801 | 25535 | 32012 | 1.78 | 2.3E-02 | BF528462.1 | EST_HUMAN | 602043928F1 NCL_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4181454 5' |
| 12819 | 25904 | 31974 | 2.47 | 2.3E-02 | U38394.1 | NT | Streptomyces sp. alpha-1,3/4-fucosidase precursor gene, complete cds |
| 12875 | 26185 | | 1.88 | 2.3E-02 | U11077.1 | NT | Dicystostellum discoideum extracellular signal-regulated protein kinase (ERK1) mRNA, complete cds |
| 756 | 13937 | 26982 | 3.59 | 2.2E-02 | AF018267.1 | NT | Columbia livia nucleoside diphosphate kinase (NDPK) gene, nuclear gene encoding mitochondrial protein, complete cds |
| 1766 | 14935 | | 1.79 | 2.2E-02 | 4557448 | NT | Homo sapiens chromodomain helicase DNA binding protein 2 (CHD2) mRNA |
| 1800 | 14949 | 28042 | 2.94 | 2.2E-02 | P07313 | SWISSPROT | MYOSIN LIGHT CHAIN KINASE, SKELETAL MUSCLE (MLCK) |
| 1800 | 14949 | 28043 | 2.94 | 2.2E-02 | P07313 | SWISSPROT | MYOSIN LIGHT CHAIN KINASE, SKELETAL MUSCLE (MLCK) |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 2072 | 15212 | 28329 | 2.17 | 2.2E-02 | Z82001.1 | NT | S.pneumoniae popA gene and open reading frames |
| 3521 | 16887 | | 2.03 | 2.2E-02 | AA57785.1 | EST_HUMAN | m24604.g1 NC1_CGAP_Gas1 Homo sapiens cDNA clone IMAGE:1084782 3' |
| 3736 | 16897 | | 4.09 | 2.2E-02 | AF083094.1 | NT | Infectious bursal disease virus segment B strain IL4 VP1 gene, complete cds |
| 3958 | 17114 | 30110 | 0.98 | 2.2E-02 | AW604317.1 | EST_HUMAN | PM0-BT0340-170100-004-b03 BT0340 Homo sapiens cDNA |
| 4028 | 17185 | 30185 | 0.99 | 2.2E-02 | Z74293.1 | NT | S.cerevisiae chromosome IV reading frame ORF YDL245c |
| 5177 | 18289 | 31282 | 1.37 | 2.2E-02 | Z73597.1 | NT | S.cerevisiae chromosome XVI reading frame ORF YPL241c |
| 7368 | 20474 | 33941 | 3.43 | 2.2E-02 | AV699721.1 | EST_HUMAN | AV699721 GKB Homo sapiens cDNA clone GKBAND03 3' |
| 8566 | 21647 | 35188 | 1.41 | 2.2E-02 | AL161515.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 27 |
| 8568 | 21647 | 35189 | 1.41 | 2.2E-02 | AL161515.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 27 |
| 9009 | 22088 | 35830 | 0.82 | 2.2E-02 | X79468.1 | NT | P. vulgaris alpha tub 2 mRNA |
| 9858 | 22858 | 36478 | 0.46 | 2.2E-02 | AJ243025.1 | NT | Mus musculus partial FBPass 2 gene for Fructose-1,6-bisphosphatase, exon 5 and Intron 5 |
| 9856 | 22858 | 36478 | 0.46 | 2.2E-02 | AJ243025.1 | NT | Mus musculus partial FBPass 2 gene for Fructose-1,6-bisphosphatase, exon 5 and Intron 5 |
| 9888 | 22828 | 36511 | 2.73 | 2.2E-02 | AB026898.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 9888 | 22828 | 36512 | 2.73 | 2.2E-02 | AB026898.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 10409 | 23444 | | 1.26 | 2.2E-02 | 6878140 | NT | Mus musculus Sjogren syndrome antigen A1 (Ssa1), mRNA |
| 12625 | 25421 | | 6.8 | 2.2E-02 | AA503553.1 | EST_HUMAN | ne47n07.s1 NC1_CGAP_Co3 Homo sapiens cDNA clone IMAGE:900541 3' similar to contains Alu repetitive element |
| 432 | 13627 | | 4.48 | 2.1E-02 | AV761502.1 | EST_HUMAN | AV761502 MDS Homo sapiens cDNA clone MDSADG01 5' |
| 482 | 13657 | | 6.62 | 2.1E-02 | AF029726.1 | NT | Dicystotellum discoideum histidine kinase C (dhkc) mRNA, complete cds |
| 1292 | 14448 | 27514 | 6.65 | 2.1E-02 | U72073.1 | NT | Bacillus subtilis cotKLM cluster, CotK (cotK), Cctl (cctl), and spore coat protein CotM (cotM) genes, complete cds |
| 1418 | 14571 | 27844 | 1.31 | 2.1E-02 | AF204395.1 | NT | Mus musculus macrophage migration inhibitory factor (MIF) gene, 5' flanking region and partial cds |
| 1418 | 14571 | 27645 | 1.31 | 2.1E-02 | AF204395.1 | NT | Mus musculus macrophage migration inhibitory factor (MIF) gene, 5' flanking region and partial cds |
| 1823 | 14972 | 28065 | 0.97 | 2.1E-02 | P02438 | SWISSPROT | KERATIN, HIGH-SULFUR MATRIX PROTEIN, B2A |
| 1823 | 14972 | 28066 | 0.97 | 2.1E-02 | P02438 | SWISSPROT | KERATIN, HIGH-SULFUR MATRIX PROTEIN, B2A |
| 1823 | 14972 | 28067 | 0.97 | 2.1E-02 | P02438 | SWISSPROT | KERATIN, HIGH-SULFUR MATRIX PROTEIN, B2A |
| 2019 | 15159 | 28264 | 0.97 | 2.1E-02 | AF190898.1 | NT | Tegula aureolincta major acrosomal protein precursor (TMAP) mRNA, complete cds |
| 2092 | 15232 | 28354 | 1.16 | 2.1E-02 | BE072546.1 | EST_HUMAN | PM2-BT0546-120100-001-f11 BT0546 Homo sapiens cDNA |
| 2092 | 15232 | 28355 | 1.16 | 2.1E-02 | BE072546.1 | EST_HUMAN | PM2-BT0546-120100-001-f11 BT0546 Homo sapiens cDNA |
| 2877 | 13980 | 27032 | 3.12 | 2.1E-02 | N29286.1 | EST_HUMAN | yx43n07.r1 Soares melanocyte 2NbmH Homo sapiens cDNA clone IMAGE:284541 5' |
| 3674 | 16837 | 29847 | 1.01 | 2.1E-02 | AA461271.1 | EST_HUMAN | z63b09.r1 Soares fetal_fetus_Nb2H-F8 Sw Homo sapiens cDNA clone IMAGE:798121 5' |
| 4249 | 17395 | 30384 | 0.88 | 2.1E-02 | Z74293.1 | NT | S.cerevisiae chromosome IV reading frame ORF YDL245c |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 4427 | 17567 | 30549 | 0.89 | 2.1E-02 | BF343653.1 | EST_HUMAN | 602013006F1 NCI_CGAP_Bn64 Homo sapiens cDNA clone IMAGE:4151181 5' |
| 4667 | 17705 | 30685 | 2.14 | 2.1E-02 | U44914.1 | NT | Borrelia burgdorferi plasmid cp32-2, erpC and erpD genes, complete cds; and unknown genes |
| 4577 | 17714 | 30698 | 1.64 | 2.1E-02 | AI768127.1 | EST_HUMAN | wg81d11.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2371509 3' |
| 4931 | 17864 | 30953 | 5.95 | 2.1E-02 | Y08601.1 | NT | A.thaliana mitochondrial genome, part A |
| 4852 | 17985 | 30973 | 0.76 | 2.1E-02 | AA665737.1 | EST_HUMAN | ag55g12.s1 Gessler Wilms tumor Homo sapiens cDNA clone IMAGE:1126918 3' |
| 4940 | 18070 | 31048 | 0.89 | 2.1E-02 | AI823432.1 | EST_HUMAN | wh64a05.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2384528 3' |
| 5315 | 18432 | 31402 | 0.91 | 2.1E-02 | BF028405.1 | EST_HUMAN | 601671411F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3954410 5' |
| 5756 | 18948 | 32250 | 0.6 | 2.1E-02 | AW379529.1 | EST_HUMAN | GM4-HT0244-111189-040-h05 HT0244 Homo sapiens cDNA |
| 7212 | 20077 | 33490 | 0.73 | 2.1E-02 | BF086189.1 | EST_HUMAN | QV3-GN0058-120900-329-a12 GN0058 Homo sapiens cDNA |
| 8716 | 21786 | 33333 | 0.66 | 2.1E-02 | 8700238 | NT | Mus musculus sorting nexin 1 (Snx1), mRNA |
| 9703 | 22752 | 36322 | 0.54 | 2.1E-02 | AA684288.1 | EST_HUMAN | am83e07.s1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:1629732 3' similar to contains |
| 9831 | 22871 | 36453 | 2.49 | 2.1E-02 | AJ243213.1 | NT | Alu repetitive element; contains element MER11 repetitive element ; |
| 9831 | 22871 | 36454 | 2.49 | 2.1E-02 | AJ243213.1 | NT | Homo sapiens partial 6-HT4 receptor gene, exons 2 to 5 |
| 10189 | 23226 | 36820 | 1.15 | 2.1E-02 | L28324.1 | NT | Homo sapiens partial 6-HT4 receptor gene, exons 2 to 5 |
| 10286 | 23301 | 36899 | 0.75 | 2.1E-02 | AA684288.1 | EST_HUMAN | Streptococcus pneumoniae integrase, excisionase, repressor protein, relaxase, UmuC MucB homolog, and |
| 10356 | 23880 | 37508 | 0.49 | 2.1E-02 | AP001518.1 | NT | UmuD MucA homolog genes, complete cds; and unknown genes |
| 11787 | 24777 | 38474 | 1.48 | 2.1E-02 | 8754255 | NT | am83e07.s1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:1629732 3' similar to contains |
| 12063 | 25044 | 38752 | 1.42 | 2.1E-02 | AW844320.1 | EST_HUMAN | Alu repetitive element; contains element MER11 repetitive element ; |
| 12602 | 18463 | | 11.16 | 2.1E-02 | Y19213.1 | NT | Bacillus halodurans genomic DNA, section 13/14 |
| 12647 | 25615 | 31682 | 1.22 | 2.1E-02 | L34170.1 | NT | Mus musculus heat shock protein, 74 kDa, A (Hsp68a), mRNA |
| 13091 | 25712 | 31938 | 3.82 | 2.1E-02 | AF183913.1 | NT | HCA-CN0050-130200-012-h04_1 CN0050 Homo sapiens cDNA |
| 19 | 13257 | 26257 | 1.28 | 2.0E-02 | BF002832.1 | EST_HUMAN | Homo sapiens putative psbHbA pseudogene for hair keratin, exons 2 to 7 |
| 20 | 13258 | 26258 | 14.95 | 2.0E-02 | AW895655.1 | EST_HUMAN | Human germline UBE1L gene similar to the gene for ubiquitin-activating enzyme, exons 1-22 |
| 269 | 13488 | 26518 | 5.03 | 2.0E-02 | 8753635 | NT | Azospirillum brasilense major outer membrane protein OmeA precursor (omeA) gene, complete cds |
| 306 | 13622 | 26556 | 2.95 | 2.0E-02 | AA456538.1 | EST_HUMAN | 7951c08.x1 NCI_CGAP_P728 Homo sapiens cDNA clone IMAGE:3308998 3' similar to contains MER1.13 |
| 821 | 14000 | 27054 | 3.63 | 2.0E-02 | 8753635 | NT | MER1 repetitive element ; |
| 1111 | 14276 | 27333 | 0.98 | 2.0E-02 | AL056805.1 | NT | QV44NN0038-270400-187-H05 NN0038 Homo sapiens cDNA |
| 1226 | 14386 | 27448 | 0.91 | 2.0E-02 | 8922391 | NT | [Mus musculus DinB homolog 1 (E. coli) (Dinb1), mRNA |
| | | | | | | | ae15b10.1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:813307 5' |
| | | | | | | | [Mus musculus DinB homolog 1 (E. coli) (Dinb1), mRNA |
| | | | | | | | Homo sapiens genomic region containing hypervariable minisatellites chromosome 1 [1p36.33] of Homo sapiens |
| | | | | | | | Homo sapiens hypothetical protein FLJ10379 (FLJ10379), mRNA |

Page 166 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 1226 | 14388 | 27449 | 0.91 | 2.0E-02 | 8922397 | NT | Homo sapiens hypothetical protein FLJ10379 (FLJ10379), mRNA |
| 1922 | 15055 | 28169 | 1.84 | 2.0E-02 | 8922453 | NT | Homo sapiens hypothetical protein FLJ10488 (FLJ10488), mRNA |
| 1922 | 15055 | 28169 | 1.84 | 2.0E-02 | 8922453 | NT | Homo sapiens hypothetical protein FLJ10488 (FLJ10488), mRNA |
| 2859 | 15973 | | 2.09 | 2.0E-02 | AL161532.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 32 |
| 3148 | 13257 | 26257 | 1.58 | 2.0E-02 | BF002932.1 | EST_HUMAN | 7g61c08.x1 NCI_CGAP_P128 Homo sapiens cDNA clone IMAGE:3309988 3' similar to contains MER1.3 |
| 3213 | 16387 | | 1.13 | 2.0E-02 | 7305474 | NT | Mus musculus repetitive element ; |
| 3299 | 16473 | | 1.89 | 2.0E-02 | AF095888.1 | NT | Mus musculus sema domain, transmembrane domain (TM), and cytoplasmic domain, (semaphorin) 9B |
| 4113 | 17267 | 30267 | 1.57 | 2.0E-02 | M18095.1 | NT | Arabidopsis thaliana C2H2 zinc finger protein FZF mRNA, complete cds |
| 5219 | 18341 | | 0.74 | 2.0E-02 | AI271895.1 | EST_HUMAN | P. vulgaris hydroxyproline-rich glycoprotein (HRGP) mRNA, 3' end |
| 6018 | 19201 | 32620 | 0.59 | 2.0E-02 | L35321.2 | NT | q89e03.x1 NCI_CGAP_K163 Homo sapiens cDNA clone IMAGE:1868076 3' |
| 7723 | 20787 | 34275 | 0.95 | 2.0E-02 | AP000004.1 | NT | Dicotyledonum dioscoreum class VII unconventional myosin (myo) gene, complete cds |
| 7723 | 20787 | 34276 | 0.95 | 2.0E-02 | AP000004.1 | NT | Pyrococcus horikoshii OT3 genomic DNA, 777001-694000 nt position (417) |
| 10081 | 23119 | | 2.39 | 2.0E-02 | U70408.1 | NT | Pyrococcus horikoshii OT3 genomic DNA, 777001-694000 nt position (417) |
| 10570 | 23605 | 37210 | 1.84 | 2.0E-02 | AI640342.1 | EST_HUMAN | Japanese encephalitis virus envelope protein mRNA, partial cds |
| 10878 | 23864 | 37692 | 1.65 | 2.0E-02 | Z73968.1 | NT | wa17002.x1 NCI_CGAP_K411 Homo sapiens cDNA clone IMAGE:2298315 3' |
| 11653 | 24732 | 38423 | 1.91 | 2.0E-02 | D88184.1 | NT | Mycobacterium tuberculosis H37Rv complete genome, segment 93/162 |
| 11978 | 24963 | 38684 | 2.04 | 2.0E-02 | 10947055 | NT | Equus caballus DNA for 17alpha-hydroxylase/17,20-lyase, complete cds |
| 11978 | 24963 | 38685 | 2.04 | 2.0E-02 | 10947055 | NT | Homo sapiens ankyrin 3, node of Ranvier (ankyrin G) (ANK3), transcript variant 1, mRNA |
| 12149 | 18499 | 31635 | 1.8 | 2.0E-02 | AA456538.1 | EST_HUMAN | ear15b10.r1 Soares_NHMPu_S1 Homo sapiens cDNA clone IMAGE:313307 5' |
| 12844 | 15973 | | 2.26 | 2.0E-02 | AL161532.2 | NT | Homo sapiens ankyrin 3, node of Ranvier (ankyrin G) (ANK3), transcript variant 1, mRNA |
| 13186 | 25771 | | 5.63 | 2.0E-02 | T60037.1 | EST_HUMAN | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 32 |
| 711 | 13893 | 26929 | 2.42 | 1.9E-02 | AA572784.1 | EST_HUMAN | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 32 |
| 2097 | 15237 | 28358 | 4.85 | 1.9E-02 | AL163303.2 | NT | repetitive element ; |
| 2097 | 15237 | 28359 | 4.85 | 1.9E-02 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 2970 | 16146 | 29164 | 9.16 | 1.9E-02 | AA713856.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C103 |
| 3018 | 16184 | 29217 | 1.92 | 1.9E-02 | AV648669.1 | EST_HUMAN | inv04105.x1 NCI_CGAP_SS1 Homo sapiens cDNA clone IMAGE:1238337 3' |
| 3332 | 16505 | | 0.72 | 1.9E-02 | AB039611.1 | NT | AV648669 GLG Homo sapiens cDNA clone GLCBLH07 3' |
| 3699 | 16860 | | 1.12 | 1.9E-02 | N62280.1 | EST_HUMAN | Utricularia talpoides mitochondrial gene for cytochrome b, complete cds |
| 3793 | 16954 | | 8.1 | 1.9E-02 | BE738088.1 | EST_HUMAN | y22802.s1 Soares_multiplex_scleriosis_2NHMSP Homo sapiens cDNA clone IMAGE:284331 3' |
| 3808 | 16988 | 29971 | 0.83 | 1.9E-02 | AI301183.1 | EST_HUMAN | 601672892F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3839564 5' |
| | | | | | | | q104c07.x1 NCI_CGAP_P11 Homo sapiens cDNA clone IMAGE:1897260 3' similar to contains Alu repetitive element; |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 4158 | 17309 | 30305 | 1.3 | 1.9E-02 | AF141940.1 | NT | Mycoplasma liniana VhaA1 precursor (vhaA1) and VhaA2 precursor (vhaA2) genes, partial cds |
| 4310 | 17453 | 30440 | 1.58 | 1.9E-02 | P08081 | SWISSPROT | HOMEOTIC BICOID PROTEIN (PRD-4) |
| 4310 | 17463 | 30441 | 1.58 | 1.9E-02 | P08081 | SWISSPROT | HOMEOTIC BICOID PROTEIN (PRD-4) |
| 4683 | 17708 | 30785 | 2.79 | 1.9E-02 | AI452998.1 | EST_HUMAN | I46804.x1 Soares NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2144551 3' similar to contains Alu repetitive element; |
| 5125 | 19701 | 28822 | 4.22 | 1.9E-02 | AL161550.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 50 |
| 5431 | 18631 | 31609 | 0.96 | 1.9E-02 | AF037352.1 | NT | Mus musculus T cell receptor gamma locus, TCR gamma 1 and gamma 3 gene clusters |
| 5585 | 18780 | 31825 | 1.25 | 1.9E-02 | L47572.1 | NT | Meleagris gallopavo paracetamolase-2 (PON2) mRNA, complete cds |
| 5808 | 19087 | 33780 | 0.83 | 1.9E-02 | AB019507.1 | NT | Drosophila kareokei gene for glyceral-3-phosphate dehydrogenase, complete cds |
| 7260 | 20333 | 33780 | 1.1 | 1.9E-02 | U19241.1 | NT | Homo sapiens interferon-gamma receptor alpha chain gene, exon 1 |
| 7260 | 20333 | 33781 | 1.1 | 1.9E-02 | U19241.1 | NT | Homo sapiens interferon-gamma receptor alpha chain gene, exon 1 |
| 8769 | 21848 | 33781 | 1.33 | 1.9E-02 | AL162754.2 | NT | Neisseria meningitidis serogroup A strain Z2491 complete genome; segment 317 |
| 9532 | 22597 | 36189 | 1.21 | 1.9E-02 | BF316129.1 | EST_HUMAN | 801896130F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4126482 5' |
| 9914 | 22954 | 36540 | 0.67 | 1.9E-02 | L10114.1 | EST | Nectandra tabacum type II phytochrome (phyB) gene, complete cds |
| 10251 | 23283 | 36882 | 1.24 | 1.9E-02 | BF695832.1 | EST_HUMAN | 801852389F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4076253 5' |
| 10458 | 23493 | 37104 | 0.87 | 1.9E-02 | D64001.1 | NT | Synechocystis sp. PCC6803 complete genome, 20/27, 2539000-2644794 |
| 11021 | 24100 | 37738 | 1.91 | 1.9E-02 | AF008338.1 | NT | Vibrio cholerae V89 phage putative replication protein gene, complete cds |
| 12372 | 25924 | 31866 | 4.41 | 1.9E-02 | AF101066.1 | NT | Hirudo medicinalis intermediate filament glicanin mRNA, complete cds |
| 13006 | 28880 | | 1.46 | 1.9E-02 | L11068.1 | NT | Candida albicans lambda Csa3/5 fragment |
| 358 | 13667 | 26595 | 1.67 | 1.8E-02 | AW771104.1 | EST_HUMAN | hm52a08.x1 NCL_CGAP_Cot17 Homo sapiens cDNA clone IMAGE:3027274 3' similar to contains element |
| 703 | 13686 | 26918 | 1.81 | 1.8E-02 | BF308122.1 | EST_HUMAN | MER29 repetitive element ; |
| 1188 | 14348 | 27400 | 1.43 | 1.8E-02 | X17684.1 | NT | 601894328F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4139083 5' |
| 1467 | 14621 | 27704 | 1.38 | 1.8E-02 | AF243382.1 | NT | H.fransisci mRNA for myelin basic protein (MBP) |
| 2743 | 15660 | 28972 | 1.74 | 1.8E-02 | AE004544.1 | NT | Drosophila melanogaster cytoplasmic protein encare (enc) mRNA, complete cds |
| 3282 | 16456 | | 0.94 | 1.8E-02 | AI805829.1 | EST_HUMAN | Pseudomonas aeruginosa PAO1, section 705 of 528 of the complete genome |
| 3993 | 17160 | 30156 | 1.09 | 1.8E-02 | AW879122.1 | EST_HUMAN | tes2a09.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2060286 3' |
| 3993 | 17160 | 30157 | 1.09 | 1.8E-02 | AW879122.1 | EST_HUMAN | MR1-OT0011-280300-009-g04 OT0011 Homo sapiens cDNA |
| 4197 | 17347 | | 1.01 | 1.8E-02 | AA861448.1 | EST_HUMAN | MR1-OT0011-280300-009-g04 OT0011 Homo sapiens cDNA |
| 4500 | 17688 | 30689 | 1.52 | 1.8E-02 | AW936363.1 | EST_HUMAN | ak24h04.s1 Soares testis NHT Homo sapiens cDNA clone IMAGE:1406935 3' |
| 6069 | 18197 | 31171 | 2.02 | 1.8E-02 | O60810 | SWISSPROT | QV4-OT0021-301299-071-b11 DT0021 Homo sapiens cDNA |
| 6949 | 20262 | 33700 | 4.44 | 1.8E-02 | P14310 | SWISSPROT | HYPOTHETICAL 7.9 KB PROTEIN IN FIXW 5'REGION |
| 7624 | 20694 | 34170 | 2.3 | 1.8E-02 | BF125690.1 | EST_HUMAN | HYPOTHETICAL 7.9 KB PROTEIN IN FIXW 5'REGION |
| 7660 | 20694 | 34170 | 0.61 | 1.8E-02 | BF125690.1 | EST_HUMAN | 601783268F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:4026280 5' |

Page 168 of 550
Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 8322 | 21404 | 34631 | 0.89 | 1.8E-02 | U37091.1 | NT | Mus musculus carbonic anhydrase IV gene, complete cds |
| 8663 | 21743 | 35283 | 0.46 | 1.8E-02 | AW005327.1 | EST_HUMAN | QVZ-NN1073-220400-159-h09 NN1073 Homo sapiens cDNA |
| 8710 | 21780 | 35326 | 0.76 | 1.8E-02 | 6578943 | NT | Mus musculus microtubule-associated protein 2 (Map2), mRNA |
| 8693 | 22742 | 36311 | 0.57 | 1.8E-02 | BF241924.1 | EST_HUMAN | 601877028F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4106303 6' |
| 8693 | 22742 | 36312 | 0.57 | 1.8E-02 | BF241924.1 | EST_HUMAN | 601877028F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4106303 5' |
| 9842 | 22882 | | 2.23 | 1.8E-02 | AA887543.1 | EST_HUMAN | aj82009.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1394921 3' similar to gb.L11672 ZINC |
| 10268 | 23303 | 36900 | 1.7 | 1.8E-02 | BE778274.1 | EST_HUMAN | FINGER PROTEIN 91 (HUMAN); |
| 10431 | 23466 | 37072 | 1.29 | 1.8E-02 | X98933.1 | NT | 601463545F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3866963 5' |
| 11721 | 23807 | 37530 | 1.76 | 1.8E-02 | AB002337.2 | NT | L. elongalis mRNA for myomodulin neuropeptide precursor |
| 11721 | 23807 | 37531 | 1.76 | 1.8E-02 | AB002337.2 | NT | Homo sapiens mRNA for KIAA0339 protein, partial cds |
| 11721 | 23807 | 37531 | 1.76 | 1.8E-02 | AB002337.2 | NT | Homo sapiens mRNA for KIAA0339 protein, partial cds |
| 11912 | 24899 | 38502 | 1.65 | 1.8E-02 | AP000006.1 | NT | Pyrococcus horikoshii OT3 genome DNA, 1166001-1485000 nt, position (8/7) |
| 11926 | 24912 | 38513 | 2.45 | 1.8E-02 | U62749.1 | NT | Zea mays acidic ribosomal protein P2a-3 (rpp2a-3) mRNA, partial cds |
| 13096 | 25894 | | 1.78 | 1.8E-02 | AF202180.1 | NT | Plasmodium falciparum erythrocyte membrane-associated giant protein antigen 332 (Ag332) gene, partial cds |
| 929 | 14104 | 27187 | 1.34 | 1.7E-02 | BE394869.1 | EST_HUMAN | 601310626F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3632180 5' |
| 1831 | 14979 | 28076 | 2.12 | 1.7E-02 | AW573183.1 | EST_HUMAN | h34a03.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2833740 3' similar to contains L1.11 L1 repetitive element; |
| 1831 | 14979 | 28076 | 2.12 | 1.7E-02 | AW573183.1 | EST_HUMAN | h34a03.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2833740 3' similar to contains L1.11 L1 repetitive element; |
| 1920 | 15083 | | 2.85 | 1.7E-02 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 2161 | 16316 | | 13.13 | 1.7E-02 | AB004816.1 | NT | Oryctolagus cuniculus mRNA for mitogen-activated protein kinase |
| 2705 | 15823 | | 1.38 | 1.7E-02 | 7657495 | NT | Homo sapiens putative Rab5 GDP/GTP exchange factor homologue (RABEX6), mRNA |
| 3062 | 18238 | 28259 | 0.89 | 1.7E-02 | AH147915.1 | EST_HUMAN | q22a08.x1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:1636982 3' |
| 3602 | 18768 | | 4.64 | 1.7E-02 | AW827368.1 | EST_HUMAN | hm45a04.x1 NCI_CGAP_RDF1 Homo sapiens cDNA clone IMAGE:3015534 3' similar to contains |
| 3718 | 18877 | | 0.83 | 1.7E-02 | FO4929 | SWISSPROT | MER19.b1 MER19 repetitive element; |
| 4284 | 17429 | | 1.23 | 1.7E-02 | AA659618.1 | EST_HUMAN | HISTIDINE-RICH GLYCOPROTEIN PRECURSOR |
| 4317 | 17460 | | 2.02 | 1.7E-02 | R02506.1 | EST_HUMAN | ac1804.s1 Strabagene ovary (8837217) Homo sapiens cDNA clone IMAGE:856927 3' similar to contains Alu repetitive element; contains element MER24 repetitive element; |
| 4576 | 17713 | 30697 | 0.74 | 1.7E-02 | AI305279.1 | EST_HUMAN | y8808.1 Soares_fetal_liver_spleen_1NFLS Homo sapiens cDNA clone IMAGE:124847 5' |
| 4849 | 17785 | 30768 | 1.32 | 1.7E-02 | AW573183.1 | EST_HUMAN | qm08g07.x1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1881276 3' similar to gb.X52369 ZINC |
| | | | | | | | FINGER PROTEIN 30 (HUMAN); |
| | | | | | | | h34a03.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2833740 3' similar to contains L1.11 L1 repetitive element; |

Page 169 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 4838 | 17669 | 30857 | 1.81 | 1.7E-02 | V00641.1 | NT | Messenger RNA for anglerfish (<i>Lophius americanus</i>) somatostatin II |
| 4834 | 18084 | | 5.88 | 1.7E-02 | A015076.1 | EST_HUMAN | ov51e02.a1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:1840858 3' |
| 6253 | 19427 | 32773 | 1.69 | 1.7E-02 | A1769247.1 | EST_HUMAN | wg35f09.x1 Soares NSF_F8_gw_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2387113 3' similar to contains Alu repetitive element: |
| 6709 | 19887 | 33256 | 1.23 | 1.7E-02 | A1038280.1 | EST_HUMAN | oy85r03.x1 Soares fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1672661 3' |
| 7195 | 20060 | 33471 | 1.26 | 1.7E-02 | AF190930.1 | EST_HUMAN | Macaca fascicularis protein tyrosine phosphatase (PRL-1) mRNA, complete cds |
| 7363 | 20482 | 33884 | 1.9 | 1.7E-02 | 8400716 | NT | Homo sapiens nebulin (NEB), mRNA |
| 7513 | 20587 | 34060 | 1.08 | 1.7E-02 | L07899.1 | NT | Human apolipoprotein (a) gene, exon 1 |
| 7613 | 20587 | 34061 | 1.08 | 1.7E-02 | L07899.1 | NT | Human apolipoprotein (a) gene, exon 1 |
| 7821 | 20972 | | 1.71 | 1.7E-02 | AJ010770.1 | NT | Homo sapiens hypoxanthine phosphoribosyl transferase, exon 1-50 |
| 9638 | 21079 | 34591 | 0.89 | 1.7E-02 | U21654.1 | NT | Caenorhabditis elegans cCAP1 protein gene, complete cds |
| 9000 | 22940 | 35526 | 1.28 | 1.7E-02 | AL040354.1 | EST_HUMAN | DKFZ4340314.1_1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZ4340314 5' |
| 12083 | 25073 | 38780 | 1.66 | 1.7E-02 | 5002007 | NT | Homo sapiens serum constituent protein (MSE66), mRNA |
| 12891 | 26111 | 31687 | 2.35 | 1.7E-02 | AW603482.1 | EST_HUMAN | CMA-NN1030-040400-130-103 NN1030 Homo sapiens cDNA cc08d04.e1 NCI_CGAP_Ox2 Homo sapiens cDNA clone IMAGE:1385287 similar to contains element MSR1 repetitive element; |
| 13166 | 26757 | 31928 | 1.46 | 1.7E-02 | AAB46926.1 | EST_HUMAN | Mycobacterium tuberculosis H37Rv complete genome; segment 13/162 |
| 524 | 13717 | | 4.05 | 1.6E-02 | AL021629.1 | NT | |
| 1889 | 14841 | 27926 | 1.37 | 1.6E-02 | Y18889.1 | NT | Treponema mallophilum flaB2, flaB3 and fliD genes for flagellin subunit proteins and CAP protein homologue |
| 2323 | 15455 | 28589 | 1.81 | 1.6E-02 | Q64176 | SWISSPROT | LIVER CARBOXYLESTERASE 22 PRECURSOR (EGASYN) (ESTERASE-22) |
| 2323 | 15455 | 28587 | 1.81 | 1.6E-02 | Q64176 | SWISSPROT | LIVER CARBOXYLESTERASE 22 PRECURSOR (EGASYN) (ESTERASE-22) |
| 2631 | 15754 | 28669 | 0.97 | 1.6E-02 | AJ006345.1 | NT | Homo sapiens KVLQY1 gene |
| 2708 | 15926 | 28941 | 1.75 | 1.6E-02 | AA484872.1 | EST_HUMAN | ne81d03.s1 NCI_CGAP_Ew1 Homo sapiens cDNA clone IMAGE:910667 |
| 2758 | 16875 | | 1.01 | 1.6E-02 | AB014534.1 | NT | Homo sapiens mRNA for KIAA0634 protein, partial cds |
| 3614 | 16778 | 29793 | 5.33 | 1.6E-02 | AW850652.1 | EST_HUMAN | IL3-CT0219-160200-063-C07 CT0219 Homo sapiens cDNA |
| | | | | | | | Mus musculus major histocompatibility complex region NG27, NG28, RPS28, NADH oxidoreductase, NG29, KIFC1, Fae-binding protein, BING1, tapasin, RALGDS-like, KE2, BING4, beta 1,3-galactosyl transferase, and |
| 4291 | 17436 | | 1.96 | 1.6E-02 | AF110520.1 | NT | RPS18 genes, complete cds; Sacm21 gene, partial> |
| 4416 | 17556 | 30543 | 2.04 | 1.6E-02 | AW876407.1 | EST_HUMAN | QV2-PT0012-140100-030-107 PT0012 Homo sapiens cDNA |
| 5367 | 18570 | 31438 | 0.59 | 1.6E-02 | AL281385.1 | EST_HUMAN | ql42b09.x1 NCI_CGAP_Lym5 Homo sapiens cDNA clone IMAGE:1987417 3' |
| 5741 | 18934 | 32234 | 1.42 | 1.6E-02 | 6871715 | NT | Mus musculus CD3 antigen (Cd3), mRNA |
| 6780 | 19935 | 33331 | 2.16 | 1.6E-02 | AB015281.1 | NT | Candida albicans CAGCR3 gene, complete cds |
| 7071 | 20124 | 33539 | 1.14 | 1.6E-02 | AB027571.1 | NT | Seocharomycetes cerevisiae CAD2 gene for cadmium resistance protein, complete cds |
| 7071 | 20124 | 33540 | 1.14 | 1.6E-02 | AB027571.1 | NT | Saccharomycetes cerevisiae CAD2 gene for cadmium resistance protein, complete cds |

Page 170 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 7888 | 20940 | 34446 | 0.96 | 1.6E-02 | AL161508.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 20 |
| 8312 | 21394 | 34919 | 0.74 | 1.6E-02 | AJ277682.1 | NT | Homo sapiens partial TUB gene for tubby (mouse) homolog and LMO1 gene for LIM domain only 1 protein |
| 8372 | 21453 | | 3.37 | 1.6E-02 | X05151.1 | NT | Human apoC-II gene for preproapolipoprotein C-II |
| 10246 | 23281 | | 2.97 | 1.6E-02 | AF079764.1 | NT | Drosophila melanogaster enhancer of polycomb (E(Pc)) mRNA, complete cds |
| 10633 | 23667 | 37276 | 1.61 | 1.6E-02 | AA572818.1 | EST_HUMAN | h18g03.s1 NCL CGAP_P1 Homo sapiens cDNA clone IMAGE:314260 similar to SW:TELO_RABIT |
| 10633 | 23667 | 37277 | 1.61 | 1.6E-02 | AA572818.1 | EST_HUMAN | h18g03.s1 NCL CGAP_P1 Homo sapiens cDNA clone IMAGE:314260 similar to SW:TELO_RABIT |
| 11149 | 25938 | 37848 | 2.9 | 1.6E-02 | Z94828.1 | NT | G.gallus microsatellite DNA (LE10260 (=T1611E11)) |
| 11488 | 24547 | 38219 | 2.11 | 1.6E-02 | AL161508.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 20 |
| 11488 | 24547 | 38220 | 2.11 | 1.6E-02 | AL161508.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 20 |
| 11801 | 24791 | 38486 | 2.16 | 1.6E-02 | AJ373558.1 | EST_HUMAN | q286r10.x1 Soares_pregnant_uterus_NHPU Homo sapiens cDNA clone IMAGE:2042442.3' |
| 12348 | 16455 | 28586 | 3.49 | 1.6E-02 | Q64176 | SWISSPROT | LIVER CARBOXYL ESTERASE 22 PRECURSOR (EGASYN) (ESTERASE-22) |
| 12348 | 16455 | 28587 | 3.49 | 1.6E-02 | Q64176 | SWISSPROT | LIVER CARBOXYL ESTERASE 22 PRECURSOR (EGASYN) (ESTERASE-22) |
| 770 | 13951 | | 9.38 | 1.5E-02 | 8923734 | NT | Homo sapiens transcription factor (HSA130894), mRNA |
| 2209 | 16343 | 28469 | 3.58 | 1.5E-02 | N39521.1 | EST_HUMAN | w27b07.s1 Soares fetal liver spleen 1NLS Homo sapiens cDNA clone IMAGE:243926 3' |
| 2244 | 16377 | 28505 | 1.8 | 1.5E-02 | AL161594.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 90 |
| 3128 | 16304 | 29317 | 1.04 | 1.5E-02 | AJ006216.1 | NT | Homo sapiens CACNA1F gene, exons 1 to 48 |
| 3128 | 16304 | 29318 | 1.04 | 1.5E-02 | AJ006216.1 | NT | Homo sapiens CACNA1F gene, exons 1 to 48 |
| 3818 | 16978 | 29582 | 1.14 | 1.5E-02 | BF092942.1 | EST_HUMAN | MR4-TN0115-080900-201-b12 TN0115 Homo sapiens cDNA |
| 4590 | 17727 | 30710 | 0.72 | 1.5E-02 | AF260226.1 | NT | Homo sapiens TESTIN 2 and TESTIN 3 genes, complete cds, alternatively spliced |
| 6423 | 19582 | 32957 | 2.07 | 1.5E-02 | Q09711 | SWISSPROT | HYPOTHETICAL CALCIUM-BINDING PROTEIN C18B11.04 IN CHROMOSOME 1 |
| 7472 | 20547 | | 1.69 | 1.5E-02 | 11487282 | NT | Cyanophora paradoxa cyanella, complete genome |
| 7561 | 20633 | 34108 | 1.57 | 1.5E-02 | 11418713 | NT | Homo sapiens KIAA1009 protein (KIAA1009), mRNA |
| 8058 | 21141 | 34660 | 1.38 | 1.5E-02 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21G103 |
| 8066 | 21147 | 34688 | 3.06 | 1.5E-02 | 11417739 | NT | Homo sapiens valyl-tRNA synthetase 2 (VARS2), mRNA |
| 9030 | 22109 | 36660 | 1.42 | 1.5E-02 | BF345554.1 | EST_HUMAN | 602019135F1 NCL CGAP_Bim67 Homo sapiens cDNA clone IMAGE:4154504 5' |
| 9668 | 22630 | | 0.58 | 1.5E-02 | AF006774.1 | NT | Homo sapiens kinase-related protein isoform 1 mRNA, complete cds |
| 9770 | 22766 | 36337 | 1.59 | 1.5E-02 | D44906.1 | NT | Saccharomyces cerevisiae chromosome VI plasmid GapC |
| 10016 | 23054 | 36849 | 1.3 | 1.5E-02 | R32667.1 | EST_HUMAN | y154b10.r1 Soares placenta Nb2-IP Homo sapiens cDNA clone IMAGE:133531 5' |
| 10016 | 23054 | 36850 | 1.3 | 1.5E-02 | R32667.1 | EST_HUMAN | y154b10.r1 Soares placenta Nb2-IP Homo sapiens cDNA clone IMAGE:133531 5' |
| 10860 | 23893 | 37514 | 0.46 | 1.5E-02 | T92198.1 | EST_HUMAN | y17110.s1 Stralagene lung (#637210) Homo sapiens cDNA clone IMAGE:118027 3' |
| 11066 | 24133 | | 1.78 | 1.5E-02 | D26547.1 | NT | Rice gene for thioredoxin h, complete cds |

Page 171 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 11442 | 24503 | 38171 | 2.21 | 1.5E-02 | L40809.1 | NT | Plasmodium falciparum (strain FCR3) variant-specific surface protein (var-2, var-3) genes, complete cds's |
| 12576 | 25970 | | 2.38 | 1.5E-02 | AW750834.1 | EST_HUMAN | RC4-CN0049-140100-011-c11 CN0049 Homo sapiens cDNA |
| 430 | 13626 | | 1.54 | 1.4E-02 | AE002230.2 | NT | Chlamydia pneumoniae AR39, section 58 of 94 of the complete genome |
| 1142 | 14307 | 27363 | 3.81 | 1.4E-02 | 7705880 | NT | Homo sapiens NESH protein (LOC51225), mRNA |
| 1285 | 14441 | | 2.12 | 1.4E-02 | U32800.1 | NT | Haemophilus influenzae Rd section 115 of 163 of the complete genome |
| 1326 | 14483 | | 2.49 | 1.4E-02 | U67779.1 | NT | Xenopus laevis neurogenin related 1b (X-NGNR-1b) mRNA, complete cds |
| 3284 | 16458 | 29478 | 1.83 | 1.4E-02 | AF160969.2 | NT | Blifobacterium longum Na+/H+ antiporter (nhaB), cytosine deaminase, and alpha-galactosidase (agl-) genes, complete cds; and N-acetylglucosamine-6-phosphate repressor protein (nagC/xyfR) gene, partial cds |
| 3485 | 16653 | 29686 | 1.23 | 1.4E-02 | AW074212.1 | EST_HUMAN | xb09d09.x1 NCI_CGAP_GUT1 Homo sapiens cDNA clone IMAGE:2575793 3' |
| 3573 | 16733 | 29763 | 6.9 | 1.4E-02 | AL161898.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 82 |
| 3573 | 16738 | 29764 | 6.9 | 1.4E-02 | AL161898.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 82 |
| 3608 | 16772 | 29787 | 0.75 | 1.4E-02 | 4503628 | NT | Homo sapiens coagulation factor XII (Hageman factor) (F12), mRNA |
| 3746 | 16807 | 29911 | 12.14 | 1.4E-02 | 6898918 | NT | Mus musculus histocompatibility 2, complement component factor B (H2-B), mRNA |
| 4612 | 17749 | 30729 | 9.97 | 1.4E-02 | AW962898.1 | EST_HUMAN | EST374781 IMAGE: resequences, MAGG Homo sapiens cDNA |
| 4612 | 17749 | 30730 | 9.97 | 1.4E-02 | AW962898.1 | EST_HUMAN | EST374781 IMAGE: resequences, MAGG Homo sapiens cDNA |
| 4998 | 18127 | 31102 | 6.22 | 1.4E-02 | BE733142.1 | EST_HUMAN | 601567403F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3842280 5' |
| 4998 | 18127 | 31103 | 6.22 | 1.4E-02 | BE733142.1 | EST_HUMAN | 601567403F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3842280 5' |
| 5911 | 26210 | | 0.74 | 1.4E-02 | X91333.1 | NT | H. sapiens LwSS-B pseudogene 3 |
| 6545 | 19707 | 33083 | 4.52 | 1.4E-02 | AA559030.1 | EST_HUMAN | nl11004.s1 NCI_CGAP_Br2 Homo sapiens cDNA clone IMAGE:1029990 3' similar to contains Alu repetitive element |
| 6545 | 19707 | 33084 | 4.52 | 1.4E-02 | AA559030.1 | EST_HUMAN | nl11004.s1 NCI_CGAP_Br2 Homo sapiens cDNA clone IMAGE:1029990 3' similar to contains Alu repetitive element |
| 8333 | 21415 | | 1.56 | 1.4E-02 | AL022073.1 | NT | Mycobacterium tuberculosis H37Rv complete genome, segment 88/162 |
| 9089 | 22178 | 35722 | 1.44 | 1.4E-02 | M81702.1 | NT | Candida boidinii methanol oxidase (AOD1) gene, complete cds |
| 9366 | 22431 | 35989 | 1.41 | 1.4E-02 | AJ272265.1 | NT | Homo sapiens SPP2 gene for secreted phosphoprotein 24 precursor, exons 1-8 |
| 9800 | 22655 | 36227 | 1.66 | 1.4E-02 | BE544591.1 | EST_HUMAN | 601078239F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3464241 5' |
| 10780 | 23813 | | 0.89 | 1.4E-02 | AL163218.2 | NT | Homo sapiens chromosome 21 segment HS21C018 |
| 12268 | 25194 | 38358 | 8.95 | 1.4E-02 | X60459.1 | NT | Human IFNAR gene for interferon alpha/beta receptor |
| 12640 | 26430 | | 1.84 | 1.4E-02 | AF324985.1 | NT | Arabidopsis thaliana F21J6.3 mRNA, complete cds |
| 12859 | 25925 | | 1.45 | 1.4E-02 | 11426968 | NT | Homo sapiens sperm associated antigen 7 (SPAG7), mRNA |
| 13075 | 25704 | | 1.51 | 1.4E-02 | AF238059.2 | NT | Rhau x cultorum NADH dehydrogenase subunit F (ndhF) gene, partial cds; chloroplast gene for chloroplast product |

Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 1913 | 19058 | | 1.19 | 1.3E-02 | BE799263.1 | EST_HUMAN | 601568462F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3826335 5' |
| 2010 | 19150 | 28254 | 2.13 | 1.3E-02 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 2512 | 16638 | 28769 | 0.98 | 1.3E-02 | AE002445.1 | NT | Nakaseia meningitidis serogroup B strain MC58 section 87 of 208 of the complete genome |
| 3285 | 18459 | 29479 | 2.41 | 1.3E-02 | BF687081.1 | EST_HUMAN | 602129475F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4286203 5' |
| 3285 | 18459 | 29480 | 2.41 | 1.3E-02 | BF687081.1 | EST_HUMAN | 602129475F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4286203 5' |
| 4078 | 17232 | | 1.22 | 1.3E-02 | AF169288.1 | NT | Mus musculus beta-sarcoglycan gene, complete cds |
| 6276 | 18394 | | 3.02 | 1.3E-02 | D26547.1 | NT | Rice gene for thiorodoxin h, complete cds |
| 6360 | 18563 | 31478 | 1.61 | 1.3E-02 | AL049866.2 | NT | Mus musculus chromosome X contigB; X-linked lymphocyte regulated 5 gene, Zinc finger protein 276, Zinc finger protein 92, mnxq28orf |
| 5360 | 18563 | 31479 | 1.61 | 1.3E-02 | AL049866.2 | NT | Mus musculus chromosome X contigB; X-linked lymphocyte regulated 5 gene, Zinc finger protein 276, Zinc finger protein 92, mnxq28orf |
| 6263 | 19466 | 32819 | 1.2 | 1.3E-02 | U60017.1 | NT | Homo sapiens basic transcription factor 2 p44 (btf2p44) gene, partial cds, neuronal apoptosis inhibitory protein (naip) and survival motor neuron protein (smn) genes, complete cds |
| 6927 | 19489 | 32856 | 1.05 | 1.3E-02 | M62062.1 | NT | C. reinhardtii ribulose 1,5-bisphosphate carboxylase/oxygenase activase mRNA, complete cds |
| 7101 | 18528 | 31481 | 1.3 | 1.3E-02 | AL161546.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 46 |
| 7101 | 18528 | 31482 | 1.3 | 1.3E-02 | AL161546.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 46 |
| 7752 | 20812 | 34303 | 4.9 | 1.3E-02 | AI031593.1 | EST_HUMAN | ov08g05.x1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1846072 3' similar to contains Alu repetitive element |
| 8678 | 21758 | 35284 | 1.67 | 1.3E-02 | AF156961.1 | NT | Homo sapiens human endogenous retrovirus W gagC3.37 G gag (gag) gene, complete cds |
| 10411 | 23446 | 37051 | 1.89 | 1.3E-02 | M63707.1 | NT | Mouse kidney androgen-regulated protein (KAP) gene, complete cds |
| 10485 | 23520 | 37129 | 0.85 | 1.3E-02 | AE001304.1 | NT | Chlamydia trachomatis section 31 of 87 of the complete genome |
| 11239 | 24308 | 37944 | 3.35 | 1.3E-02 | AW288563.1 | EST_HUMAN | xx34603.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2815036 3' |
| 11239 | 24308 | 37945 | 3.35 | 1.3E-02 | AW288563.1 | EST_HUMAN | xx34603.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2815036 3' |
| 12845 | 26127 | | 1.7 | 1.3E-02 | Z69117.1 | NT | Bacillus subtilis complete genome (section 14 of 21); from 2588451 to 2812870 |
| 12753 | 25499 | | 2.56 | 1.3E-02 | 8633069 | NT | Human herpesvirus 6B, complete genome |
| 12965 | 25885 | | 30.16 | 1.3E-02 | AF162288.1 | NT | Homo sapiens V1b vesopressin receptor (VPR3) gene, complete cds |
| 219 | 13441 | | 0.82 | 1.2E-02 | X87344.1 | NT | H. sapiens DMA, DMB, HLA-Z1, IIP2, LMP2, LMP7, TAP2, DOB, DOB2 and RING6, 9, 13 and 14 genes |
| 366 | 13576 | 26608 | 4.38 | 1.2E-02 | AA059299.1 | EST_HUMAN | zf65g01.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:381840 5' similar to contains element L1 repetitive element; |
| 485 | 13660 | 26696 | 1.43 | 1.2E-02 | P38858 | SWISSPROT | HYPOTHETICAL 17.1 KD PROTEIN IN PUR5 3 REGION |
| 767 | 13938 | 26983 | 2.67 | 1.2E-02 | AI183522.1 | EST_HUMAN | qd68e12.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1734670 3' similar to contains L1 t1 L1 repetitive element; |
| 2248 | 15379 | 28507 | 2.03 | 1.2E-02 | AL163213.2 | NT | Homo sapiens chromosome 21 segment HS21C013 |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 2514 | 15540 | 28762 | 1.02 | 1.2E-02 | AW172350.1 | EST_HUMAN | X37c09.x1 Soares_NFL_I_GBC_S1 Homo sapiens cDNA clone IMAGE:2859432 3' |
| 2701 | 15540 | 28762 | 1.43 | 1.2E-02 | AW172350.1 | EST_HUMAN | X37c09.x1 Soares_NFL_I_GBC_S1 Homo sapiens cDNA clone IMAGE:2859432 3' |
| 3170 | 16346 | | 7.3 | 1.2E-02 | AA075418.1 | EST_HUMAN | zn18c03.11 Stratagene ovarian cancer (#637219) Homo sapiens cDNA clone IMAGE:646020 5' |
| 3359 | 16531 | 29545 | 2.05 | 1.2E-02 | R62805.1 | EST_HUMAN | y11b08.s1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:198903 3' |
| 3362 | 16534 | 29548 | 0.59 | 1.2E-02 | AI688694.1 | EST_HUMAN | zb6a07.x5 Soares_fetal_lung_NHL19W Homo sapiens cDNA clone IMAGE:308532 3' similar to contains element MER22 repetitive element; |
| 5035 | 18163 | 31139 | 2.02 | 1.2E-02 | U91328.1 | NT | Human hereditary haemochromatosis region, histone 2A-like protein gene, hereditary haemochromatosis (HLA-H) gene, RnRel gene, and sodium phosphate transporter (NPT3) gene, complete cds |
| 5184 | 18278 | | 1.97 | 1.2E-02 | AB019786.1 | NT | Cynops pyrrhogaster CpUbiqT mRNA, partial cds |
| 6185 | 18317 | 31286 | 1.31 | 1.2E-02 | AV731704.1 | EST_HUMAN | AV731704 HTF Homo sapiens cDNA clone HTFBJHG11 5' |
| 5371 | 19031 | 32388 | 1.78 | 1.2E-02 | D76589.1 | NT | Rana rugosa mRNA for calcitriol, complete cds |
| 6243 | 19417 | 32765 | 0.72 | 1.2E-02 | AF045555.1 | NT | Homo sapiens wbscr1 (WBSOR1) and wbscr5 (WBSOR5) genes, complete cds, alternatively spliced and replication factor C subunit 2 (RFC2) gene, complete cds |
| 7147 | 20282 | 33724 | 8.67 | 1.2E-02 | AF175412.1 | NT | Mus musculus DNA methyltransferase (Dnmt1) gene, exons 2, 3, 4, and 5 |
| 7443 | 20520 | 33993 | 1.42 | 1.2E-02 | H02197.1 | EST_HUMAN | y34h12.s1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:150695 3' |
| 7465 | 20540 | 34014 | 8.54 | 1.2E-02 | AV732093.1 | EST_HUMAN | AV732093 HTF Homo sapiens cDNA clone HTFBJC09 5' |
| 7729 | 20781 | 34280 | 0.66 | 1.2E-02 | BF216650.1 | EST_HUMAN | 601882949F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4095253 5' |
| 8186 | 21268 | 34792 | 2.3 | 1.2E-02 | Q11205 | SWISSPROT | OMP-N-ACETYLNEURAMINATE-BETA-GALACTOSAMIDE-ALPHA-2,3-SIALYLTRANSFERASE (BETA-GALACTOSIDE ALPHA-2,3-SIALYLTRANSFERASE) (ALPHA 2,3-ST) (GAL-NAC6S) (GAL-BETA-1,3-GALNAC-ALPHA-2,3-SIALYLTRANSFERASE) (ST3GALA.2) (SIAT4-B) |
| 8321 | 21403 | 34929 | 0.56 | 1.2E-02 | R68831.1 | EST_HUMAN | y43f06.s1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:142019 3' |
| 8321 | 21403 | 34930 | 0.56 | 1.2E-02 | R68831.1 | EST_HUMAN | y43f06.s1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:142019 3' |
| 8366 | 21467 | 34993 | 1.22 | 1.2E-02 | AF193812.1 | NT | Homo sapiens fringe protein mRNA, partial cds |
| 8368 | 21467 | 34994 | 1.22 | 1.2E-02 | AF193812.1 | NT | Homo sapiens fringe protein mRNA, partial cds |
| 8081 | 22170 | | 1 | 1.2E-02 | T76887.1 | EST_HUMAN | y172c08.s1 Soares fetal liver spleen 1NLS Homo sapiens cDNA clone IMAGE:113774 3' |
| 8839 | 22879 | 36461 | 2.54 | 1.2E-02 | AB031013.1 | NT | Narwalk-like virus genogroup 2 gene for capsid protein, complete cds |
| 8872 | 22912 | 36487 | 1.24 | 1.2E-02 | AJ246003.1 | NT | Homo sapiens Spast gene for spastin protein |
| 12757 | 25986 | | 1.16 | 1.2E-02 | P17139 | SWISSPROT | COLLAGEN ALPHA 1(IV) CHAIN PRECURSOR |
| 12974 | 26834 | | 6.24 | 1.2E-02 | C18119.1 | EST_HUMAN | C18119 Human placenta cDNA (T7ujwre) Homo sapiens cDNA clone GEN-557G08 5' |
| 1298 | 14454 | 27520 | 1.22 | 1.1E-02 | AA070364.1 | EST_HUMAN | zn163811.s1 Stratagene neuroepithelium (#637231) Homo sapiens cDNA clone IMAGE:530924 3' |
| 1743 | 14882 | 27986 | 1.48 | 1.1E-02 | X75491.1 | NT | H. sapiens LIPA gene, exon 4 |
| 1743 | 14882 | 27987 | 1.48 | 1.1E-02 | X75491.1 | NT | H. sapiens LIPA gene, exon 4 |
| 2086 | 15236 | 28357 | 5.35 | 1.1E-02 | BF345263.1 | EST_HUMAN | 602018037F1 NCI_CGAP_Brm07 Homo sapiens cDNA clone IMAGE:4153808 5' |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 2942 | 18119 | | 5.31 | 1.1E-02 | N99523.1 | EST_HUMAN | z44f0c05.r1 Soares fetal liver spleen. 1NFLS Homo sapiens cDNA clone IMAGE:285040 5' |
| 3612 | 18776 | 29792 | 3.59 | 1.1E-02 | AI853508.1 | EST_HUMAN | lq8b10.x1 NCI CGAP Ov23 Homo sapiens cDNA clone IMAGE:2216539 3' similar to SW.XPF_HUMAN |
| 4222 | 17370 | | 0.66 | 1.1E-02 | AW813798.1 | EST_HUMAN | Q82899 DNA-REPAIR PROTEIN COMPLEMENTING XP-F CELL ; |
| 4951 | 18081 | 31057 | 1.27 | 1.1E-02 | AL048983.2 | EST_HUMAN | RC3-ST0197-120200-018-g11 ST0197 Homo sapiens cDNA |
| | | | | | | EST_HUMAN | DKFZp588E0924 s1 586 (synonym: huta1) Homo sapiens cDNA clone DKFZp588E0924 |
| | | | | | | | Bacillus subtilis SpoVK (spoVK), YnbA (ynbA), YnbB (ynbB), GlnR (glnR), glutamine synthetase (glnA), YnaA (ynaA), YnaB (ynab), YnaC (ynac), YnaD (ynad), YnaE (ynae), YnaF (ynaf), YnaG (ynag), YnaH (ynah), YnaJ (ynaj), YnaL (ynal), xylan beta-1,4-xylosyl> |
| 6277 | 19461 | 32800 | 0.89 | 1.1E-02 | U66480.1 | NT | RC1-HT0258-100300-018-h07 HT0258 Homo sapiens cDNA |
| 7773 | 20830 | 34321 | 2.19 | 1.1E-02 | BE149811.1 | EST_HUMAN | Melanogaster sanguinipes entomopoxvirus, complete genome |
| 7989 | 21039 | 34551 | 1.25 | 1.1E-02 | 8631294 | NT | METALLOTHIONEIN (MT-1/MT-2) |
| 8451 | 21532 | 35061 | 0.46 | 1.1E-02 | P80394 | SWISSPROT | METALLOTHIONEIN (MT-1/MT-2) |
| 8451 | 21532 | 35062 | 0.46 | 1.1E-02 | P80394 | SWISSPROT | QV3-BN0045-220300-128-h02 BN0045 Homo sapiens cDNA |
| 8841 | 21620 | 35458 | 0.69 | 1.1E-02 | AW998160.1 | EST_HUMAN | G04803 Human heart cDNA (YNakamura) Homo sapiens cDNA clone 3NHC4040 |
| 9022 | 22101 | 35841 | 0.7 | 1.1E-02 | C04803.1 | EST_HUMAN | NEUROGENIC LOCUS NOTCH 3 PROTEIN |
| 9103 | 22182 | 35727 | 7.44 | 1.1E-02 | Q61982 | SWISSPROT | |
| 10133 | 23171 | 38769 | 2.02 | 1.1E-02 | AA082578.1 | EST_HUMAN | zn24e01.r1 Stratagene neuroepithelium NT2RAMI 937234 Homo sapiens cDNA clone IMAGE:548328 5' |
| 10299 | 23334 | 36939 | 4.09 | 1.1E-02 | AA314665.1 | EST_HUMAN | EST189494 Colon carcinoma (HCC) cell line II Homo sapiens cDNA 5' end |
| 11224 | 24263 | 37834 | 2.41 | 1.1E-02 | 11435505 | NT | Homo sapiens T-box 6 (TBX6), mRNA |
| | | | | | | | ab77111.s1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:863006 3' similar to contains |
| 12185 | 25152 | | 4.01 | 1.1E-02 | AA668239.1 | EST_HUMAN | Alu repetitive element; |
| 7 | 13245 | 26247 | 8.82 | 1.0E-02 | AW846120.1 | EST_HUMAN | MIR3-CT0176-111099-003-e10 CT0176 Homo sapiens cDNA |
| 1552 | 14705 | 27785 | 0.97 | 1.0E-02 | AW368128.1 | EST_HUMAN | CM2-HT0177-041099-017-h12 HT0177 Homo sapiens cDNA |
| 2638 | 15761 | | 1.71 | 1.0E-02 | AA806389.1 | EST_HUMAN | cc22h08.s1 NCI CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1350495 3' |
| 3199 | 16334 | 29344 | 2.88 | 1.0E-02 | BE835536.1 | EST_HUMAN | RC0-FN0025-250500-021-d02 FN0025 Homo sapiens cDNA |
| 3336 | 16509 | 29325 | 1.24 | 1.0E-02 | BE868996.1 | EST_HUMAN | G0184997R1 NIH_MGC_74 Homo sapiens cDNA clone IMAGE:3933689 3' |
| 3598 | 16762 | | 0.7 | 1.0E-02 | AW845621.1 | EST_HUMAN | MRO-CT0080-081099-003-H10 CT0080 Homo sapiens cDNA |
| 3986 | 17143 | 30148 | 0.85 | 1.0E-02 | AI065086.1 | EST_HUMAN | HA0921 Human fetal liver cDNA library Homo sapiens cDNA |
| 4002 | 17159 | 30185 | 0.59 | 1.0E-02 | AL163302.2 | NT | Homo sapiens chromosome 21 segment HS21C102 |
| 4899 | 18029 | 31017 | 5 | 1.0E-02 | 6753521 | NT | Mus musculus corticotropin releasing hormone receptor 2 (Chr2), mRNA |
| 4969 | 18098 | 31074 | 4.14 | 1.0E-02 | R66567.1 | EST_HUMAN | yf54h01.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:198633 6' |
| 5116 | 18243 | 31208 | 0.83 | 1.0E-02 | AL161593.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 89 |
| 5242 | 18364 | 31332 | 1.96 | 1.0E-02 | P06569 | SWISSPROT | EXTENSIN PRECURSOR |
| 5532 | 18729 | 31745 | 0.81 | 1.0E-02 | H52881.1 | EST_HUMAN | yc36h11.r1 Soares ovary tumor NBHOT Homo sapiens cDNA clone IMAGE:235941 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 5885 | 18055 | 32382 | 0.68 | 1.0E-02 | AF30388.1 | NT | Mus musculus transcription complex subunit NF-A1c4 (Nfatc4) gene, exons 1 and 2 |
| 8242 | 19416 | 32784 | 1.29 | 1.0E-02 | AF257303.1 | NT | Mus musculus synaptotagmin II (Syn2) gene, complete cds |
| 8310 | 19482 | 32836 | 2.78 | 1.0E-02 | AW577113.1 | EST_HUMAN | MR4-BT0358-070100-201-H01 BT0358 Homo sapiens cDNA |
| 6310 | 19482 | 32837 | 2.78 | 1.0E-02 | AW577113.1 | EST_HUMAN | MR4-BT0358-070100-201-H01 BT0358 Homo sapiens cDNA |
| 6901 | 20216 | 33848 | 1.69 | 1.0E-02 | Z28642.1 | NT | Zmays L3snRNA pseudogene |
| 8583 | 22648 | 36218 | 6.34 | 1.0E-02 | BF036331.1 | EST_HUMAN | 601459570F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3863177 5' |
| 8593 | 22648 | 36220 | 6.34 | 1.0E-02 | BF036331.1 | EST_HUMAN | 601459570F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3863177 5' |
| 11542 | 24598 | | 2.12 | 1.0E-02 | AF157559.1 | NT | Citridia fasciculata 27 kDa gukR RNA-binding protein mRNA, complete cds; mitochondrial gene for mitochondrial product |
| 11573 | 24628 | | 1.7 | 1.0E-02 | A1417961.1 | EST_HUMAN | ig55h07.x1 NCI_CGAP_P128 Homo sapiens cDNA clone IMAGE:2112733 3' similar to gb:X15183_cds1 |
| 11649 | 24728 | 38420 | 1.85 | 1.0E-02 | AV700016.1 | EST_HUMAN | HEAT SHOCK PROTEIN HSP 90-ALPHA (HUMAN); contains Alu repetitive element; contains element MER5 |
| 12278 | 26208 | | 1.76 | 1.0E-02 | Q62203 | SWISSPROT | repetitive element; |
| 12339 | 26941 | 31782 | 3.68 | 1.0E-02 | AW635521.1 | EST_HUMAN | AV750016 MDS Homo sapiens cDNA clone MDSBDC10 5' |
| 12355 | 26002 | | 4.31 | 1.0E-02 | S70330.1 | NT | SPUCEOSOME ASSOCIATED PROTEIN 62 (SAP 62) (SPLICING FACTOR 3A SUBUNIT 2) (SF3A66) |
| 12764 | 25974 | | 1.4 | 1.0E-02 | AJ276506.1 | NT | RC2-DT007-120200-018-H02 DT0007 Homo sapiens cDNA |
| 12949 | 26080 | | 2.91 | 1.0E-02 | X82654.1 | NT | Homo sapiens renal dipeptidase (RDP) gene, complete cds |
| 916 | 14091 | 27156 | 5.69 | 9.0E-03 | A1796126.1 | EST_HUMAN | Mus musculus genomic fragment, 279 Kb, chromosome 7 |
| 1203 | 14449 | | 1.66 | 9.0E-03 | BE781869.1 | EST_HUMAN | H. sapiens gene for Me491/CD63 antigen |
| 2489 | 15593 | 28721 | 2.64 | 9.0E-03 | AL161659.2 | NT | wt4208.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2383433 3' similar to contig element |
| 2971 | 16147 | 29165 | 0.81 | 9.0E-03 | A1251744.1 | EST_HUMAN | MER22 MER22 repetitive element; |
| 2971 | 16147 | 29166 | 0.81 | 9.0E-03 | A1251744.1 | EST_HUMAN | 601470242F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3873348 5' |
| 3758 | 18919 | 29921 | 0.66 | 9.0E-03 | J05184.1 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 59 |
| 6931 | 19117 | | 1.19 | 9.0E-03 | A1809792.1 | EST_HUMAN | qt80009.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1854281 3' |
| 6768 | 18922 | | 4.01 | 9.0E-03 | BE745988.1 | EST_HUMAN | qt80009.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1854281 3' |
| 7823 | 20893 | 34169 | 0.81 | 9.0E-03 | A1242219.1 | EST_HUMAN | S. acidocalcalarius thermopain gene, complete cds |
| 7840 | 20709 | 34188 | 0.91 | 9.0E-03 | 8922570 | NT | wt7704.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2361831 3' |
| 8059 | 21142 | | 0.8 | 9.0E-03 | AL039991.1 | EST_HUMAN | 601573438F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3884782 5' |
| 8443 | 21524 | | 0.54 | 9.0E-03 | AF223391.1 | NT | qt87612.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1853974 3' |
| 10050 | 23088 | 36690 | 0.54 | 9.0E-03 | P26011 | SWISSPROT | Homo sapiens hypothetical protein FLJ10650 (FLJ10650), mRNA |
| 10068 | 23104 | 38707 | 1.47 | 9.0E-03 | P20808 | SWISSPROT | DKFZp434L0412_r1 494 (synonym: hicc3) Homo sapiens cDNA clone DKFZp434L0412 5' |
| | | | | | | | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| | | | | | | | spliced |
| | | | | | | | INTEGRIN BETA-7 PRECURSOR (INTEGRIN BETA-P) (M280 IEL ANTIGEN) |
| | | | | | | | COLLAGEN ALPHA 1(V) CHAIN PRECURSOR |

Page 176 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 11232 | 24301 | | 1.68 | 9.0E-03 | Y18000.1 | NT | Homo sapiens NF2 gene |
| 11951 | 24937 | 38638 | 1.31 | 9.0E-03 | L11144.1 | NT | Homo sapiens preproglutinin (GAL-1) gene, exons 1, 2, and 3 |
| 11951 | 24937 | 38638 | 1.31 | 9.0E-03 | L11144.1 | NT | Homo sapiens preproglutinin (GAL-1) gene, exons 1, 2, and 3 |
| 12404 | 26208 | | 2.07 | 9.0E-03 | BF351141.1 | EST_HUMAN | PM1-HT0452-291299-001-e09 HT0452 Homo sapiens cDNA |
| 12722 | 26200 | | 37.58 | 9.0E-03 | BE348385.1 | EST_HUMAN | hw17608.x1 NCL CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3183181 3' |
| 12838 | 25558 | | 1.21 | 9.0E-03 | AL163287.2 | NT | Homo sapiens chromosome 21 segment HS21C067 |
| 13074 | 25703 | 32016 | 17.6 | 9.0E-03 | BF351141.1 | EST_HUMAN | PM1-HT0452-291299-001-e09 HT0452 Homo sapiens cDNA |
| 514 | 13708 | | 3.16 | 8.0E-03 | AA723007.1 | EST_HUMAN | zh30e03.s1 Scaree3_pineal_gland_N3HPG Homo sapiens cDNA clone IMAGE:413696 3' similar to contains |
| 1013 | 14185 | 27248 | 12.69 | 8.0E-03 | AF108658.1 | NT | Alu repetitive element; |
| 2226 | 16363 | 28489 | 1.87 | 8.0E-03 | AL163283.2 | NT | Homo sapiens adenylsuccinate lyase gene, complete cds |
| 2817 | 15741 | 28853 | 3.05 | 8.0E-03 | P10266 | SWISSPROT | RETROVIRUS-RELATED POLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE ; ENDONUCLEASE] |
| 3442 | 16610 | 28628 | 1.02 | 8.0E-03 | AJ131016.1 | NT | Homo sapiens SCL gene locus |
| 3768 | 16927 | 28930 | 1.81 | 8.0E-03 | P32644 | SWISSPROT | HYPOTHETICAL 127.0 KD PROTEIN IN RAD24-BMH1 INTERGENIC REGION |
| 3768 | 16927 | 28931 | 1.81 | 8.0E-03 | P32644 | SWISSPROT | HYPOTHETICAL 127.0 KD PROTEIN IN RAD24-BMH1 INTERGENIC REGION |
| 4372 | 17516 | 30405 | 1.15 | 8.0E-03 | BE840049.1 | EST_HUMAN | QV0-FN0181-140700-304-g10 FN0181 Homo sapiens cDNA |
| 4502 | 17642 | 30527 | 6.73 | 8.0E-03 | BF363327.1 | EST_HUMAN | GM4-NN0119-300600-223-b05 NN0119 Homo sapiens cDNA |
| 4839 | 17972 | 30961 | 0.63 | 8.0E-03 | P03181 | SWISSPROT | HYPOTHETICAL BHLFI PROTEIN |
| 4839 | 17972 | 30962 | 0.63 | 8.0E-03 | P03181 | SWISSPROT | HYPOTHETICAL BHLFI PROTEIN |
| 5271 | 18390 | 31358 | 0.94 | 8.0E-03 | AU140281.1 | EST_HUMAN | AU140281 PLACE2 Homo sapiens cDNA clone PLACE2000223 5' |
| 5640 | 18834 | 31911 | 2.8 | 8.0E-03 | AF110520.1 | NT | Mus musculus major histocompatibility complex region NG27, NG28, RPS28, NADH oxidoreductase, NG28, KIFC1, Fas-binding protein, BING1, tapasin, RalGDS-like, KE2, BING4, beta 1,3-galactosyl transferase, and |
| 6328 | 25823 | 32867 | 1.27 | 8.0E-03 | AF000002.1 | NT | RPS18 genes, complete cds; Secm21 gene, partial> |
| 6889 | 20941 | 33460 | 4.4 | 8.0E-03 | P55577 | SWISSPROT | PROBABLE PEPTIDASE YANA |
| 7088 | 20112 | | 1.08 | 8.0E-03 | V01109.1 | NT | Human BK virus (strain MM) genome. (Closely related to SV40.) |
| 7357 | 20438 | 33898 | 1.43 | 8.0E-03 | M17197.1 | NT | A.californica (marine gastropod mollusc) neuropeptide gene (bag cell), exon 1, 5' end |
| 7714 | 20779 | | 1.8 | 8.0E-03 | AB038267.1 | NT | Tursiops truncatus mRNA for p40-phox, complete cds |
| 9084 | 22163 | 35707 | 0.64 | 8.0E-03 | P88160 | SWISSPROT | BASAL MEMBRANE-SPECIFIC HEPARAN SULFATE PROTEOGLYCAN CORE PROTEIN |
| 9111 | 22160 | 35734 | 3.53 | 8.0E-03 | AW808692.1 | EST_HUMAN | PRECURSOR (HSPG) (PERLECAN) (PLC) |
| 9180 | 22258 | 35801 | 0.88 | 8.0E-03 | 9789956 | NT | MR1-ST0111-111199-011-H06 ST0111 Homo sapiens cDNA |
| 10164 | 23191 | | 4.75 | 8.0E-03 | BE086509.1 | EST_HUMAN | Mus musculus fusion 2 (human) (Fus2), mRNA |
| | | | | | | | QV1-BT0677-040400-131-g03 BT0677 Homo sapiens cDNA |

Page 177 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 11005 | 24084 | 37721 | 2.01 | 8.0E-03 | BE788441.1 | EST_HUMAN | 601476619F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3878405 5' |
| 11231 | 24300 | | 2.79 | 8.0E-03 | Z49832.1 | NT | S. cerevisiae chromosome X reading frame ORF YJR152W |
| 11683 | 24742 | 39433 | 1.39 | 8.0E-03 | AA828817.1 | EST_HUMAN | cd80a09.s1 NCL_CGAP_OV2 Homo sapiens cDNA clone IMAGE:1374232 |
| 11683 | 24742 | 39434 | 1.39 | 8.0E-03 | AA828817.1 | EST_HUMAN | cd80a09.s1 NCL_CGAP_OV2 Homo sapiens cDNA clone IMAGE:1374232 |
| 12016 | 24999 | 39701 | 4.37 | 8.0E-03 | AF064569.1 | NT | Homo sapiens melanoma-associated antigen (IMAGE-C1) gene, complete cds |
| 12205 | 25159 | | 1.89 | 8.0E-03 | M69035.1 | NT | Oryctolagus cuniculus eIF-2a kinase mRNA, complete cds |
| 12252 | 25191 | | 7.14 | 8.0E-03 | AB038161.1 | NT | Homo sapiens ABCG1 gene for ABC transporter (ATP-binding cassette, sub-family G (WHITE), member 1), complete cds |
| 13145 | 29559 | | 1.16 | 8.0E-03 | A1277808.1 | EST_HUMAN | q155c09.x1 Soares_placenta_81c5weeks_2N1bHP106W Homo sapiens cDNA clone IMAGE:1892762 3' |
| 712 | 13894 | 26930 | 12.35 | 7.0E-03 | AF097183.1 | NT | Cryptosporidium parvum HC-10 gene, complete cds |
| 712 | 13894 | 26931 | 12.35 | 7.0E-03 | AF097183.1 | NT | Cryptosporidium parvum HC-10 gene, complete cds |
| 999 | 14170 | 27231 | 3.26 | 7.0E-03 | AF243376.1 | NT | Glycine max glutathione S-transferase GST 21 mRNA, partial cds |
| 1140 | 14305 | 27381 | 3.55 | 7.0E-03 | AV731712.1 | EST_HUMAN | AV731712 HTF Homo sapiens cDNA clone HTFAZF10 5' |
| 1395 | 14549 | | 1.03 | 7.0E-03 | Q61060 | SWISSPROT | NUCLEAR BOX PROTEIN D3 (HNF3FH TRANSCRIPTION FACTOR GENESIS) (HEPATOCYTE) |
| 1426 | 14580 | 27653 | 3.39 | 7.0E-03 | AA698298.1 | EST_HUMAN | ab78b09.s1 Stratiagene fetal retina 837202 Homo sapiens cDNA clone IMAGE:853145 3' |
| 1632 | 14685 | 27784 | 3.28 | 7.0E-03 | AW303559.1 | EST_HUMAN | ix21b02.x1 Soares_NFL_I_GBC_S1 Homo sapiens cDNA clone IMAGE:2813739 3' |
| 2332 | 16060 | 28598 | 2 | 7.0E-03 | P04929 | SWISSPROT | HISTIDINE-RICH GLYCOPROTEIN PRECURSOR |
| 2695 | 16815 | | 0.98 | 7.0E-03 | AW772132.1 | EST_HUMAN | tr67h07.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3032989 3' similar to contains Alu repetitive element |
| 3648 | 16811 | 29824 | 0.65 | 7.0E-03 | A1150273.1 | EST_HUMAN | q34h02.x1 Soares_basils_NHT Homo sapiens cDNA clone IMAGE:1751855 3' |
| 3883 | 17023 | 30022 | 0.71 | 7.0E-03 | AW444463.1 | EST_HUMAN | UI-H-B13-akb-c-10-Q-UI.s1 NCL_CGAP_Sub56 Homo sapiens cDNA clone IMAGE:2733691 3' |
| 3914 | 17073 | 30071 | 1.13 | 7.0E-03 | AF196344.1 | NT | Rattus norvegicus neuronal nicotinic acetylcholine receptor subunit (Alpha10) mRNA, complete cds |
| 4128 | 17023 | 30022 | 0.77 | 7.0E-03 | AW444463.1 | EST_HUMAN | UI-H-B13-akb-c-10-Q-UI.s1 NCL_CGAP_Sub56 Homo sapiens cDNA clone IMAGE:2733691 3' |
| 4721 | 17858 | | 0.98 | 7.0E-03 | AW630888.1 | EST_HUMAN | tr89a05.y1 NCL_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2889936 5' |
| 5103 | 18231 | | 6.54 | 7.0E-03 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 5940 | 19126 | | 0.72 | 7.0E-03 | HT1108.1 | EST_HUMAN | y82g01.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:211824 5' similar to |
| 6288 | 25821 | | 4.42 | 7.0E-03 | AW661059.1 | EST_HUMAN | gbX14723 CLUSTERIN PRECURSOR (HUMAN) |
| 6444 | 18611 | 32974 | 1.67 | 7.0E-03 | W69261.1 | EST_HUMAN | RC1-CT0289-050400-018-c08 CT0289 Homo sapiens cDNA |
| 6667 | 18928 | 33213 | 2.92 | 7.0E-03 | AA327128.1 | EST_HUMAN | z633f10.r1 Soares_fetal_heart_NbrH19W Homo sapiens cDNA clone IMAGE:342476 5' |
| | | | | | | | EST130674 Colon I Homo sapiens cDNA 5' end |

Page 178 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6695 | 19853 | 33243 | 1.05 | 7.0E-03 | BE857385.1 | EST_HUMAN | 7g34b10.x1 NCL_CGAP_Bm23 Homo sapiens cDNA clone IMAGE:3308347 3' similar to TR:Q13387 |
| 7228 | 20133 | 33550 | 1.93 | 7.0E-03 | BE828133.1 | EST_HUMAN | Q13387 HYPOTHETICAL PROTEIN 384D8_2, contains TAR1.2 TAR1 TAR1 repetitive element ; |
| 7689 | 20754 | 34238 | 4.76 | 7.0E-03 | Z35838.1 | NT | CM2-CT0478-230800-347-b11 CT0478 Homo sapiens cDNA |
| 7689 | 20754 | 34239 | 4.76 | 7.0E-03 | Z35838.1 | NT | S.cerevisiae chromosome II reading frame ORF YBL077w |
| 8031 | 21114 | 34832 | 0.59 | 7.0E-03 | AJ229043.1 | NT | S.cerevisiae chromosome II reading frame ORF YBL077w |
| 8031 | 21114 | 34833 | 0.59 | 7.0E-03 | AJ229043.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22, segment 3/3 |
| 8302 | 21384 | 34805 | 2.48 | 7.0E-03 | BE175667.1 | EST_HUMAN | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22, segment 3/3 |
| 8813 | 21852 | 35433 | 0.58 | 7.0E-03 | AF281074.1 | NT | RC5-HT0582-160300-011-D02 HT0582 Homo sapiens cDNA |
| 8997 | 22852 | | 0.84 | 7.0E-03 | AF111168.2 | NT | Homo sapiens neuropilin 2 (NRP2) gene, complete cds, alternatively spliced |
| 9784 | 22834 | 36414 | 0.68 | 7.0E-03 | N82378.1 | EST_HUMAN | Homo sapiens serine palmitoyl transferase, subunit II gene, complete cds; and unknown genes |
| 9921 | 22961 | 36548 | 2.72 | 7.0E-03 | P48982 | SWISSPROT | yv49c10.a1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:246068 3' similar to contains |
| 9921 | 22961 | 36549 | 2.72 | 7.0E-03 | P48982 | SWISSPROT | Alu repetitive element; |
| 10513 | 23548 | | 1.34 | 7.0E-03 | AV687376.1 | EST_HUMAN | BETA-GALACTOSIDASE PRECURSOR (LACTASE) |
| 10704 | 23737 | | 0.82 | 7.0E-03 | AI789734.1 | EST_HUMAN | BETA-GALACTOSIDASE PRECURSOR (LACTASE) |
| 10800 | 23833 | 37456 | 0.47 | 7.0E-03 | BE164643.1 | EST_HUMAN | AV687376 GKC Homo sapiens cDNA clone GKCAF007 5' |
| 11065 | 24141 | 37776 | 2.41 | 7.0E-03 | AB008852.1 | NT | wc37609.x1 NCL_CGAP_P28 Homo sapiens cDNA clone IMAGE:2320840 3' |
| 11140 | 24212 | 37838 | 1.55 | 7.0E-03 | AJ004862.1 | NT | PM3-HT0344-181199-002-g08 HT0344 Homo sapiens cDNA |
| 11140 | 24212 | 37839 | 1.55 | 7.0E-03 | AJ004862.1 | NT | Bos taurus mRNA for NDP52, complete cds |
| 12792 | 26189 | | 1.95 | 7.0E-03 | H94085.1 | EST_HUMAN | Homo sapiens partial MUC5B gene, exon 1-29 |
| 12800 | 26534 | | 1.46 | 7.0E-03 | BE263253.1 | EST_HUMAN | Homo sapiens partial MUC5B gene, exon 1-29 |
| 12908 | 25801 | | 1.78 | 7.0E-03 | Y17455.1 | NT | Homo sapiens partial MUC5B gene, exon 1-29 |
| 13058 | 26188 | | 1.68 | 7.0E-03 | AL163300.2 | NT | Homo sapiens partial MUC5B gene, exon 1-29 |
| 1299 | 14427 | 27494 | 8.76 | 6.0E-03 | AW511148.1 | EST_HUMAN | yv16h01.a1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:242833 3' similar to contains |
| 1299 | 14427 | 27495 | 8.76 | 6.0E-03 | AW511148.1 | EST_HUMAN | Alu repetitive element; |
| 2831 | 15946 | 29054 | 0.94 | 6.0E-03 | AF112374.1 | NT | 601145154F2 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3160476 5' |
| 2856 | 16133 | 29147 | 3.29 | 6.0E-03 | AA759135.1 | EST_HUMAN | Homo sapiens LSFR2 gene, penultimate exon |
| 2956 | 16133 | 29148 | 3.28 | 6.0E-03 | AA759135.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C100 |
| 3318 | 16491 | | 2.27 | 6.0E-03 | HT5680.1 | EST_HUMAN | hd22a05.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2810224 3' similar to |
| | | | | | | | SW:PXK_HUMAN_075469 ORPHAN NUCLEAR RECEPTOR PXK ; |
| | | | | | | | hd22a05.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2810224 3' similar to |
| | | | | | | | SW:PXK_HUMAN_075469 ORPHAN NUCLEAR RECEPTOR PXK ; |
| | | | | | | | Danio rerio odorant receptor gene cluster |
| | | | | | | | ah78e11.s1 Soares_testis_NHT Homo sapiens cDNA clone 1321772 3' |
| | | | | | | | ah78e11.s1 Soares_testis_NHT Homo sapiens cDNA clone 1321772 3' |
| | | | | | | | yv7h04.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:211351 5' |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 3378 | 16550 | | 0.63 | 6.0E-03 | AF180338.1 | NT | Notoncus sp. cytochrome c oxidase subunit II gene, peritil cds; mitochondrial gene for mitochondrial product |
| 3409 | 16636 | 25655 | 1.26 | 6.0E-03 | U90880.1 | NT | Fugu rubripes zinc finger protein, isotocin, fatty acid binding protein, septaplerin reductase and vasotocin genes, complete cds |
| 3489 | 16836 | 26656 | 1.25 | 6.0E-03 | U90880.1 | NT | Fugu rubripes zinc finger protein, isotocin, fatty acid binding protein, septaplerin reductase and vasotocin genes, complete cds |
| 3636 | 16800 | | 1.11 | 6.0E-03 | W37985.1 | EST_HUMAN | zz13a11.1 Soares parathyroid tumor_NbHPA Homo sapiens cDNA clone IMAGE:322172 5' |
| 3760 | 16811 | 28914 | 3.73 | 6.0E-03 | BF510886.1 | EST_HUMAN | UI-H-BI4-apm-c-08-p-UJ.s1 NCL CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3087754 3' |
| 3877 | 17036 | 30034 | 1.31 | 6.0E-03 | 8754029 | EST | Mus musculus glucosamine-6-phosphate deaminase (G6pd), mRNA |
| 4032 | 17188 | 30189 | 0.8 | 6.0E-03 | AW847284.1 | EST_HUMAN | RCO-CT0204-240989-021-b10 CT0204 Homo sapiens cDNA |
| 4067 | 17223 | | 1.26 | 6.0E-03 | BE260108.1 | EST_HUMAN | 600942804F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2859513 5' |
| 4484 | 17624 | | 1.54 | 6.0E-03 | A1016833.1 | EST_HUMAN | α33c11.x1 Soares testis NHT Homo sapiens cDNA clone IMAGE:1639124 3' |
| 4817 | 17650 | 30635 | 7.9 | 6.0E-03 | AA324242.1 | EST_HUMAN | EST27116 Cerebellum II Homo sapiens cDNA 5' and similar to EST containing Alu repeat |
| 5305 | 18422 | 31392 | 0.8 | 6.0E-03 | AA860972.1 | EST_HUMAN | αP509.s1 Soares parathyroid tumor_NbHPA Homo sapiens cDNA clone IMAGE:1404286 3' |
| 6281 | 25822 | 32803 | 0.69 | 6.0E-03 | 6927521 | NT | Varbia virus, complete genome |
| 6986 | 20269 | 33707 | 0.8 | 6.0E-03 | O14994 | SWISSPROT | SYNAPSIN III |
| 6994 | 18513 | 31505 | 0.97 | 6.0E-03 | BE263748.1 | EST_HUMAN | 60112353F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3353172 5' |
| 7398 | 20477 | 33944 | 0.65 | 6.0E-03 | AA288442.1 | EST_HUMAN | EST11849 Uterus tumor I Homo sapiens cDNA 5' and |
| 7399 | 20477 | 33945 | 0.65 | 6.0E-03 | AA288442.1 | EST_HUMAN | EST11849 Uterus tumor I Homo sapiens cDNA 5' and |
| 7824 | 20879 | 34380 | 0.8 | 6.0E-03 | AF128804.1 | NT | Homo sapiens telomerase reverse transcriptase (TERT) gene, exons 7-16 and complete cds |
| 8042 | 21125 | 34846 | 6.71 | 6.0E-03 | A1033580.1 | EST_HUMAN | ow13a04.x1 Soares parathyroid tumor_NbHPA Homo sapiens cDNA clone IMAGE:1646670 3' similar to contains MER10.b1 MER10 repetitive element; |
| 8161 | 21243 | 34763 | 2.78 | 6.0E-03 | AW799337.1 | EST_HUMAN | RCO-UM0051-210300-032-g02 UM0051 Homo sapiens cDNA |
| 8236 | 21318 | | 1.65 | 6.0E-03 | BF038198.1 | EST_HUMAN | 601454915F1 NIH_MGC_06 Homo sapiens cDNA clone IMAGE:3858626 5' |
| 9764 | 22692 | 36282 | 7.03 | 6.0E-03 | D10548.1 | NT | Subacute sclerosing panencephalitis (SSPE) virus mRNA for fusion protein |
| 10249 | 23284 | | 2.49 | 6.0E-03 | AI432981.1 | EST_HUMAN | h22c02.x1 NCL CGAP_K411 Homo sapiens cDNA clone IMAGE:2131202 3' similar to SW:R13A_HUMAN |
| 10365 | 23400 | 37011 | 0.75 | 6.0E-03 | AJ011849.1 | NT | P40429 60S RIBOSOMAL PROTEIN L13A; |
| 10603 | 23638 | | 0.91 | 6.0E-03 | AF084555.1 | NT | Beclius subtilis fadD gene |
| 10615 | 23649 | 37258 | 0.64 | 6.0E-03 | X68365.1 | NT | Homo sapiens cdc15 complete cds |
| 10661 | 23695 | | 0.54 | 6.0E-03 | AF245505.1 | NT | M thermophilum complete plasmid pFV1 DNA |
| 10993 | 24062 | 37687 | 1.56 | 6.0E-03 | AW962164.1 | EST_HUMAN | Homo sapiens adican mRNA, complete cds |
| 11049 | 24126 | | 1.94 | 6.0E-03 | 11545814 | NT | EST374237 MAGE resequences, MAGG Homo sapiens cDNA |
| | | | | | | | Homo sapiens hypothetical zinc finger protein FLJ14011 (FLJ14011), mRNA |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 11228 | 24297 | | 4.1 | 6.0E-03 | U14556.1 | NT | Mus musculus zinc-finger protein mRNA, complete cds |
| 11229 | 24298 | 37638 | 2.66 | 6.0E-03 | BE737895.1 | EST_HUMAN | 601572746F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:3839747 5' |
| 12321 | 26232 | | 2.04 | 6.0E-03 | AF010498.1 | NT | Rhodococcus capsulatus strain SB1003, partial genome |
| 12425 | 26598 | | 1.3 | 6.0E-03 | BF671185.1 | EST_HUMAN | 602161024F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4292212 5' |
| 12451 | 26926 | | 4.65 | 6.0E-03 | AE000833.1 | NT | Methanobacterium thermoautotrophicum from bases 429192 to 450288 (section 39 of 148) of the complete genome |
| 12532 | 25883 | | 2.49 | 6.0E-03 | U30790.1 | NT | Pneumocystis carinii f. sp. ratti guanine nucleotide binding protein alpha subunit (pgc1) gene, complete cds |
| 12590 | 26387 | | 1.63 | 6.0E-03 | Q62209 | SWISSPROT | SYNAPTONEMAL COMPLEX PROTEIN 1 (SCP-1 PROTEIN) |
| 12944 | 26822 | | 2.41 | 6.0E-03 | AJ245480.1 | NT | Brassica napus sld gene for S-locus glycoprotein, cultivar T2 |
| 13095 | 26018 | | 1.61 | 6.0E-03 | X74807.1 | NT | R. norvegicus VEGP2 gene |
| 13147 | 25746 | | 1.19 | 6.0E-03 | BF110298.1 | EST_HUMAN | 7n36b11.x1 NCI_OGAP_Lu24 Homo sapiens cDNA clone IMAGE:3566504 3' |
| 686 | 13871 | 26903 | 1.59 | 5.0E-03 | L25105.1 | NT | Chlamydia trachomatis partial ORF8; aminoacyl-tRNA synthase, complete cds; complete ORFA, and grpE-like protein, complete cds |
| 686 | 13871 | 26904 | 1.59 | 5.0E-03 | L25105.1 | NT | Chlamydia trachomatis partial ORF8; aminoacyl-tRNA synthase, complete cds; complete ORFA, and grpE-like protein, complete cds |
| 687 | 13871 | 26903 | 3.08 | 5.0E-03 | L25105.1 | NT | Chlamydia trachomatis partial ORF8; aminoacyl-tRNA synthase, complete cds; complete ORFA, and grpE-like protein, complete cds |
| 687 | 13871 | 26904 | 3.08 | 5.0E-03 | L25105.1 | NT | Chlamydia trachomatis partial ORF8; aminoacyl-tRNA synthase, complete cds; complete ORFA, and grpE-like protein, complete cds |
| 1136 | 14301 | 27367 | 1.47 | 5.0E-03 | AJ010457.1 | NT | Arabidopsis thaliana mRNA for DEAD box RNA helicase, RH3 |
| 1601 | 14754 | | 1.08 | 5.0E-03 | AI138877.1 | EST_HUMAN | qf78405.x1 Soares testis, NHT Homo sapiens cDNA clone IMAGE:1735699 3' |
| 2748 | 15863 | 28974 | 2.43 | 5.0E-03 | AB033006.1 | NT | Homo sapiens mRNA for KIAA1180 protein, partial cds |
| 3208 | 16381 | 29392 | 3.87 | 5.0E-03 | T87823.1 | EST_HUMAN | yc81108.e1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:223395 3' |
| 3223 | 16397 | | 2.72 | 5.0E-03 | AL161491.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 3 |
| 3235 | 16409 | 28423 | 1.17 | 5.0E-03 | R71794.1 | EST_HUMAN | y88g02.e1 Soares breast 2N1bHst Homo sapiens cDNA clone IMAGE:166666 3' |
| 3351 | 16523 | | 0.84 | 5.0E-03 | AJ297357.1 | NT | Homo sapiens partial LIMD1 gene for LIM domain containing protein 1 and KIAA0851 gene |
| 3790 | 16951 | 28957 | 5.28 | 5.0E-03 | AF147449.2 | NT | Pseudomonas aeruginosa strain PAO1 penicillin-binding protein 1B (pbpB) gene, complete cds |
| 3854 | 17014 | 30014 | 0.61 | 5.0E-03 | U38914.1 | NT | Citrus sinensis seed storage protein cDNA clone IMAGE:223395 5' end |
| 4079 | 17235 | | 1.64 | 5.0E-03 | AA298075.1 | EST_HUMAN | EST12218 Ulenus tumor 1 Homo sapiens cDNA 5' end |
| 4241 | 17387 | 30374 | 0.65 | 5.0E-03 | AJ002125.1 | NT | Matrix domestica Zfx type gene |
| 4421 | 17592 | 30548 | 0.71 | 5.0E-03 | H78365.1 | EST_HUMAN | y07g010.r1 Soares fetal liver spleen TNF- α Homo sapiens cDNA clone IMAGE:240088 5' |
| 4423 | 17014 | 30014 | 0.76 | 5.0E-03 | U38914.1 | NT | Citrus sinensis seed storage protein cDNA clone IMAGE:240088 5' |
| 4731 | 17866 | 30848 | 0.92 | 5.0E-03 | AJ131018.1 | NT | Homo sapiens SCL gene locus |

Page 181 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 4841 | 17974 | 30984 | 1.56 | 5.0E-03 | AI752387.1 | EST_HUMAN | cn15c02.x1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBC_cn15c02 random |
| 5286 | 18405 | | 1.9 | 5.0E-03 | 4768747 | NT | Homo sapiens myosin-binding protein C, fast-type (MYBPC2) mRNA |
| 5916 | 19104 | 32417 | 5.4 | 5.0E-03 | P35500 | SWISSPROT | SODIUM CHANNEL PROTEIN PARA (PARALYTIC PROTEIN) |
| | | | | | | | PROBABLE UBIQUITIN CARBOXYL-TERMINAL HYDROLASE FAF-Y (UBIQUITIN THIOLESTERASE FAF-Y) (UBIQUITIN-SPECIFIC PROCESSING PROTEASE FAF-Y) (DEUBIQUITINATING ENZYME FAF-Y) (FAT FACETS PROTEIN RELATED, Y-LINKED) (UBIQUITIN-SPECIFIC PROTEASE 9, Y CHROMOSOME) |
| 6169 | 19345 | 32091 | 2.82 | 5.0E-03 | Q00507 | SWISSPROT | Chlamydia pneumoniae AR39, section 82 of 94 of the complete genome |
| 6204 | 19379 | | 0.88 | 5.0E-03 | AE002234.2 | NT | 6009445641.1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2980871 3' |
| 6726 | 19882 | | 7.34 | 5.0E-03 | BE300091.1 | EST_HUMAN | Mus musculus AMD1 gene for S-adenosylmethionine decarboxylase, complete cds |
| 6988 | 18505 | 31520 | 7.22 | 5.0E-03 | AB025024.1 | NT | Tursiops truncatus mRNA for p40-phox, complete cds |
| 7185 | 20050 | | 0.85 | 5.0E-03 | AB038287.1 | NT | Mus musculus dynein, axon, heavy chain 11 (Dnahe11), mRNA |
| 7237 | 20321 | 33705 | 0.61 | 5.0E-03 | 6753651 | NT | EST03012 Fetal brain, Stratagene (cat#936206) Homo sapiens cDNA clone HFBGR83 similar to EST containing Alu repeat |
| 7654 | 20722 | 34198 | 0.7 | 5.0E-03 | T05124.1 | EST_HUMAN | RC3-CT0255-031099-011-407 G10256 Homo sapiens cDNA |
| 7774 | 20831 | | 1.21 | 5.0E-03 | AW854327.1 | EST_HUMAN | Homo sapiens MASL1 mRNA, complete cds |
| 7844 | 20894 | 34605 | 7.18 | 5.0E-03 | AB018916.1 | NT | RC8-CT0281-081199-011-A05 CT0281 Homo sapiens cDNA |
| 8416 | 21496 | 35027 | 0.81 | 5.0E-03 | AW855907.1 | EST_HUMAN | RC8-CT0281-081199-011-A05 CT0281 Homo sapiens cDNA |
| 8415 | 21498 | 35028 | 0.81 | 5.0E-03 | AW855907.1 | EST_HUMAN | BETA-GALACTOSIDASE PRECURSOR (LACTASE) |
| 8433 | 21514 | 35045 | 1.99 | 5.0E-03 | P48992 | SWISSPROT | Mouse complement receptor (CR2) mRNA, 3' end |
| 8811 | 21890 | | 5.63 | 5.0E-03 | M01132.1 | NT | Escherichia coli genomic DNA, (19.1 - 19.4 min) |
| 8007 | 22096 | 35629 | 1.21 | 5.0E-03 | D90723.1 | NT | Rabbit uteroglobin (UGL) gene, exon 1 |
| 9140 | 22219 | 35783 | 0.52 | 5.0E-03 | M25090.1 | NT | Plasmidium berghei 68 kDa phosphoprotein mRNA, partial cds |
| 10044 | 23032 | 36694 | 1.03 | 5.0E-03 | L21710.1 | NT | RC0-ST0379-210100-032-002 ST0379 Homo sapiens cDNA |
| 10176 | 23213 | 36805 | 0.74 | 5.0E-03 | AW821888.1 | EST_HUMAN | h45h10.s1 NCI_CGAP_P19 Homo sapiens cDNA clone IMAGE:995587 |
| 10360 | 23395 | 37008 | 0.66 | 5.0E-03 | AA533143.1 | EST_HUMAN | Homo sapiens PR00471 protein (PR00471), mRNA |
| 10539 | 23574 | 37181 | 0.47 | 5.0E-03 | 7692567 | NT | ag49c10.s1 Gesler Wilms tumor Homo sapiens cDNA clone IMAGE:1126290 3' |
| 10696 | 23729 | | 0.47 | 5.0E-03 | AA553261.1 | EST_HUMAN | 994F Heart Homo sapiens cDNA clone 694 |
| 10959 | 24040 | | 4.79 | 5.0E-03 | T19586.1 | EST_HUMAN | hns6g05.x1 Soares_NH/CeC_cervical tumor Homo sapiens cDNA clone IMAGE:2698040 3' similar to contains L1 L2 L1 repetitive element |
| 11181 | 24250 | 37894 | 2.39 | 5.0E-03 | AW170394.1 | EST_HUMAN | hns6g05.x1 Soares_NH/CeC_cervical tumor Homo sapiens cDNA clone IMAGE:2698040 3' similar to contains L1 L2 L1 repetitive element |
| 11181 | 24250 | 37895 | 2.39 | 5.0E-03 | AW170394.1 | EST_HUMAN | hns6g05.x1 Soares_NH/CeC_cervical tumor Homo sapiens cDNA clone IMAGE:2698040 3' similar to contains L1 L2 L1 repetitive element |
| 11297 | 24363 | 38004 | 1.76 | 5.0E-03 | T49153.1 | EST_HUMAN | y099e04.r1 Stratagene placenta (h937225) Homo sapiens cDNA clone IMAGE:70888 6' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 11615 | 24666 | | 3.41 | 5.0E-03 | BE048055.1 | EST_HUMAN | tz46c04.y1 NCL_CGAP_Bm52 Homo sapiens cDNA clone IMAGE:2291622 5' |
| 12070 | 25051 | 38759 | | 1.4 | 5.0E-03 | AJ276505.1 | NT |
| 12070 | 25051 | 38760 | | 1.4 | 5.0E-03 | AJ276505.1 | Mus musculus genomic fragment, 279 Kb, chromosome 7 |
| 12407 | 26144 | | 11.88 | 5.0E-03 | AF047874.1 | NT | Mus musculus genomic fragment, 279 Kb, chromosome 7 |
| 12616 | 25414 | | 21.79 | 5.0E-03 | AF067253.1 | NT | Gallus gallus glyceraldehyde-3-phosphate dehydrogenase mRNA, complete cds |
| 12718 | 25478 | | 2.03 | 5.0E-03 | L10347.1 | NT | Brugia malayi Y chromosome marker |
| 12760 | 25504 | | 1.94 | 5.0E-03 | AA455597.1 | EST_HUMAN | Human pro-alpha1 type II collagen (COL2A1) gene exons 1-54, complete cds |
| 12802 | 25835 | | 5.99 | 5.0E-03 | BF572332.1 | EST_HUMAN | z75a03.s1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:809548 3' similar to SW:DXA2_MOUSE P14685 PROBABLE DIAPHENOL OXIDASE A2 COMPONENT ; |
| 13002 | 25951 | 31951 | 2.66 | 5.0E-03 | AW449109.1 | EST_HUMAN | 60207774.F1 NIH_MGC_82 Homo sapiens cDNA clone IMAGE:4252002 5' |
| 242 | 13464 | 26483 | 1.64 | 4.0E-03 | AW500198.1 | EST_HUMAN | U14-B13-akt-4-08-0-U1.s1 NCL_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2734216 3' |
| 331 | 13545 | 26578 | 1.75 | 4.0E-03 | R46482.1 | EST_HUMAN | U14F-BNO-akt-4-04-0-U1.s1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3076831 5' |
| 456 | 13651 | 26689 | 1.36 | 4.0E-03 | P54675 | SWISSPROT | y51e04.s1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:35988 3' |
| 816 | 13905 | 26828 | 4.37 | 4.0E-03 | AA593399.1 | EST_HUMAN | PHOSPHATIDYLINOSITOL 3-KINASE 3 (PI3-KINASE) (PI3K) |
| 900 | 14075 | 27142 | 1.65 | 4.0E-03 | R46482.1 | EST_HUMAN | on75g12.s1 Soares_NFL_1_GBC_S1 Homo sapiens cDNA clone IMAGE:1562588 3' |
| 934 | 14109 | | 2.85 | 4.0E-03 | AW749101.1 | EST_HUMAN | y51e04.s1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:35988 3' |
| 1174 | 14337 | 27393 | 34.06 | 4.0E-03 | AA099777.1 | EST_HUMAN | RC3-BT0338-110100-012-01 B70333 Homo sapiens cDNA |
| 1198 | 14368 | 27417 | 1.83 | 4.0E-03 | AW794740.1 | EST_HUMAN | z81e08.r1 Stralagene colon (#837204) Homo sapiens cDNA clone IMAGE:510998 5' |
| 1331 | 14488 | 27568 | 1.48 | 4.0E-03 | AA284374.1 | EST_HUMAN | RC8-UM0014-170400-023-G01 UM0014 Homo sapiens cDNA |
| 1783 | 14932 | 28026 | 2.68 | 4.0E-03 | U33472.1 | NT | z559a01.r1 NCL_CGAP_GCBT Homo sapiens cDNA clone IMAGE:701736 5' |
| 2076 | 15215 | 28334 | 17.33 | 4.0E-03 | AA099777.1 | EST_HUMAN | Rattus norvegicus type 1 astrocyte and oligodendrocyte associated protein AT1-46 mRNA, complete cds |
| 2321 | 15453 | | 2.06 | 4.0E-03 | BE410556.1 | EST_HUMAN | z181e08.r1 Stralagene colon (#837204) Homo sapiens cDNA clone IMAGE:510998 5' |
| 2352 | 15483 | 28816 | 1.53 | 4.0E-03 | AW794740.1 | EST_HUMAN | 601304161F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:36388510 5' |
| 2639 | 15762 | 28875 | 1.95 | 4.0E-03 | U62111.2 | NT | RC3-UM0014-170400-023-G01 UM0014 Homo sapiens cDNA |
| 2639 | 15762 | 28876 | 1.96 | 4.0E-03 | U62111.2 | NT | Homo sapiens X28 region near ALD locus containing dual specificity phosphatase 9 (DUSP9), ribosomal protein L18a (RPL18a), Ca2+/Calmodulin-dependent protein kinase I (CAMKI), creatine transporter (CRTR), CDM protein (CDM), adrenoleukodystrophy protein > |
| 2755 | 15872 | 28880 | 2.97 | 4.0E-03 | AJ277365.1 | NT | Homo sapiens X28 region near ALD locus containing dual specificity phosphatase 9 (DUSP9), ribosomal protein L18a (RPL18a), Ca2+/Calmodulin-dependent protein kinase I (CAMKI), creatine transporter (CRTR), CDM protein (CDM), adrenoleukodystrophy protein > |
| 2765 | 15872 | 28981 | 2.97 | 4.0E-03 | AJ277365.1 | NT | CDM protein (CDM), adrenoleukodystrophy protein > |
| 2761 | 15877 | 28984 | 0.97 | 4.0E-03 | AL163284.2 | NT | Homo sapiens polyglutamine-containing C14ORF4 gene |
| 3297 | 16471 | 28491 | 1.08 | 4.0E-03 | BE154134.1 | EST_HUMAN | Homo sapiens polyglutamine-containing C14ORF4 gene |

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Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 3297 | 16471 | 29492 | 1.09 | 4.0E-03 | BE154134.1 | EST_HUMAN | PM1-HT0340-151289-003-108 HT0340 Homo sapiens cDNA |
| 3619 | 16783 | 29768 | 0.83 | 4.0E-03 | AW189426.1 | EST_HUMAN | X98104.x1 NCL_CGAP_Co18 Homo sapiens cDNA clone IMAGE:2665279 3' |
| 3619 | 16783 | 29769 | 0.83 | 4.0E-03 | AW189426.1 | EST_HUMAN | X98104.x1 NCL_CGAP_Co18 Homo sapiens cDNA clone IMAGE:2665279 3' |
| 3714 | 16875 | 29880 | 0.64 | 4.0E-03 | Q13606 | SWISSPROT | OLFACTORY RECEPTOR 511 (OLFACTORY RECEPTOR-LIKE PROTEIN OLF1) |
| 4021 | 16875 | 29880 | 0.65 | 4.0E-03 | Q13606 | SWISSPROT | OLFACTORY RECEPTOR 511 (OLFACTORY RECEPTOR-LIKE PROTEIN OLF1) |
| 4040 | 17196 | 30207 | 0.72 | 4.0E-03 | AF060968.1 | NT | Mus musculus tumor susceptibility protein 101 (tag101) gene, complete cds |
| 4102 | 17256 | | 2.18 | 4.0E-03 | AJ011712.1 | NT | Homo sapiens TNNT1 gene, exons 1-11 (and joined CDS) |
| 5339 | 18452 | 31420 | 0.98 | 4.0E-03 | AW500547.1 | EST_HUMAN | U1-HF-BNO-ak-e-10-0-U1.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3077488 5' |
| 5390 | 18592 | 31584 | 1.58 | 4.0E-03 | AF005859.1 | NT | Drosophila melanogaster anan2D7 (anan2D7) mRNA, complete cds |
| 5516 | 18713 | 31726 | 27.24 | 4.0E-03 | AF169825.1 | NT | Rattus norvegicus beta-calactin binding protein mRNA, complete cds |
| 5914 | 19102 | 32416 | 3.1 | 4.0E-03 | P04196 | SWISSPROT | (HPRG) |
| 5918 | 19106 | 32418 | 1.8 | 4.0E-03 | P21849 | SWISSPROT | MAJOR SURFACE-LABELLED TROPHOBLAST ANTIGEN PRECURSOR |
| 6003 | 19188 | 32507 | 0.8 | 4.0E-03 | AL133871.1 | EST_HUMAN | DKFZp7811014.1 781 (synonym: hamy2) Homo sapiens cDNA clone DKFZp7811014 5' |
| 6209 | 19384 | | 4.18 | 4.0E-03 | U22180.1 | NT | Rattus norvegicus opsin gene, complete cds |
| 6363 | 19533 | 32892 | 0.97 | 4.0E-03 | AW580572.1 | EST_HUMAN | hg48c07.x1 NCL_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2948852 3' |
| 6439 | 19606 | 32989 | 1.78 | 4.0E-03 | BE548453.1 | EST_HUMAN | 601076015F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3461854 5' |
| 6809 | 19963 | 33367 | 1.07 | 4.0E-03 | AA813222.1 | EST_HUMAN | q32f11.t1 Soares_testis_NHT Homo sapiens cDNA clone 1392045 3' |
| 6914 | 20229 | 33682 | 1.41 | 4.0E-03 | U76408.1 | NT | Lycopodium obscurum knotted 3 protein (TKn3) mRNA, complete cds |
| 7217 | 20082 | 33495 | 1.12 | 4.0E-03 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 7217 | 20082 | 33496 | 1.12 | 4.0E-03 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 7348 | 20428 | 33889 | 3.73 | 4.0E-03 | Q02817 | SWISSPROT | MUCIN 2 PRECURSOR (INTESTINAL MUCIN 2) |
| 7589 | 20660 | 34136 | 0.89 | 4.0E-03 | AI681483.1 | EST_HUMAN | b37g12.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2271814 3' |
| 7691 | 20662 | 34138 | 0.62 | 4.0E-03 | BE670170.1 | EST_HUMAN | 7631502.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3284043 3' |
| 7693 | 20758 | | 0.85 | 4.0E-03 | X92109.1 | NT | H. sapiens hcgIX gene |
| 8128 | 21210 | 34731 | 0.57 | 4.0E-03 | Q9T192 | SWISSPROT | ADAM-TS 5 (A DISINTEGRIN AND METALLOPROTEINASE WITH THROMBOSPONDIN MOTIFS 5) |
| 8238 | 21320 | 34838 | 4.61 | 4.0E-03 | AF111944.1 | NT | (ADAMTS-5) (ADAM-TS5) (AGGREGANASE-2) (ADMP-2) (ADAM-TS 11) |
| 8398 | 21479 | 35008 | 2 | 4.0E-03 | 7682067 | NT | Dicotyledon discoidium AX4 development protein DG1122 (DG1122) gene, partial cds |
| 8685 | 21745 | 35284 | 0.67 | 4.0E-03 | AF139827.1 | NT | Homo sapiens KIAA0345 gene product (KIAA0345), mRNA |
| 8781 | 21840 | 36381 | 0.51 | 4.0E-03 | Y12855.1 | NT | Plasmodium falciparum replication factor C subunit 1 (rfc1) gene, complete cdo |
| 8911 | 21980 | 35529 | 7.06 | 4.0E-03 | AI553983.1 | EST_HUMAN | Homo sapiens P2X7 gene, exon 12 and 13 |
| 8990 | 22169 | | 3.24 | 4.0E-03 | AL163209.2 | NT | te49b11.x1 Soares_NFL_T_CERC_S1 Homo sapiens cDNA clone IMAGE:2080013 3' similar to contains Alu repetitive element |
| 9100 | 22179 | 35723 | 3.78 | 4.0E-03 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 9825 | 22655 | 36447 | 0.47 | 4.0E-03 | AL163207.2 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 9825 | 22655 | 36448 | 0.47 | 4.0E-03 | AL163207.2 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 10131 | 23169 | 36768 | 0.63 | 4.0E-03 | H30864.1 | EST_HUMAN | yp42g12.r1 Soares retina N2b5HR Homo sapiens cDNA clone IMAGE:160160 5' |
| 10587 | 23622 | 37229 | 1.35 | 4.0E-03 | AL161555.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 88 |
| 11283 | 24349 | 37986 | 1.36 | 4.0E-03 | 4759101 | NT | Homo sapiens splicing factor, arginine/serine-rich 8 (suppressor-of-white-apoptosis, Drosophila homolog) (SFRS8) mRNA |
| 11394 | 24456 | 38117 | 5 | 4.0E-03 | AL163208.2 | NT | Homo sapiens chromosome 21 segment HS21C008 |
| 12072 | 25053 | 38762 | 1.57 | 4.0E-03 | AE002102.1 | NT | Ureaplasma urealyticum section 3 of 59 of the complete genome |
| 12434 | 26163 | | 5.84 | 4.0E-03 | BE815173.1 | EST_HUMAN | PM4-EN0738-180600-002-b08 BND138 Homo sapiens cDNA |
| 12457 | 26321 | | 1.35 | 4.0E-03 | BE298280.1 | EST_HUMAN | 601118164F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3028095 5' |
| 12641 | 26367 | | 1.85 | 4.0E-03 | AW504273.1 | EST_HUMAN | UI-HF-BND-ab-q-04-0-JL1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3080622 5' |
| 12814 | 25843 | | 3.33 | 4.0E-03 | BF224125.1 | EST_HUMAN | 7q74c09.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3' similar to contains Alu repetitive element;containing element MER31 repetitive element ; |
| 12858 | 26053 | | 2.18 | 4.0E-03 | AW614596.1 | EST_HUMAN | ht02607.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2953932 3' similar to contains element LTR5 repetitive element ; |
| 12871 | 25681 | | 1.34 | 4.0E-03 | AW819141.1 | EST_HUMAN | RC3-ST0281-240400-015-103 ST0281 Homo sapiens cDNA |
| 13202 | 25784 | 31918 | 1.23 | 4.0E-03 | 11436955 | NT | Homo sapiens Grib2-associated binder 2 (KIAA0571), mRNA |
| 382 | 13690 | 26626 | 1.25 | 3.0E-03 | AF011920.1 | NT | Homo sapiens protein kinase CK2 catalytic subunit alpha gene, exon 1 |
| 902 | 14077 | 27143 | 4.87 | 3.0E-03 | AF011920.1 | NT | Homo sapiens protein kinase CK2 catalytic subunit alpha gene, exon 1 |
| 1694 | 14846 | 27630 | 3.65 | 3.0E-03 | AA468110.1 | EST_HUMAN | nc73c05.s1 NCI_CGAP_P12 Homo sapiens cDNA clone IMAGE:782984 similar to contains Alu repetitive element |
| 2367 | 15498 | | 6.37 | 3.0E-03 | Z32521.1 | NT | S.cereale (cv. Hialo) mRNA for triosephosphate isomerase |
| 2368 | 15499 | 28624 | 1.14 | 3.0E-03 | U46859.1 | NT | Mus musculus intestinal trefoil factor gene, partial cds |
| 2368 | 15499 | 28625 | 1.14 | 3.0E-03 | U46858.1 | NT | Mus musculus intestinal trefoil factor gene, partial cds |
| 3056 | 16232 | | 0.77 | 3.0E-03 | Y08006.1 | NT | Arabidopsis thaliana rp01t gene |
| 3162 | 16327 | 29338 | 3.55 | 3.0E-03 | BE379298.1 | EST_HUMAN | 601237982F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3609933 5' |
| 3220 | 16394 | 29405 | 2.53 | 3.0E-03 | AW802687.1 | EST_HUMAN | IL2-UM0076-240300-066-D03 UM0076 Homo sapiens cDNA |
| 3504 | 16871 | 29681 | 2.16 | 3.0E-03 | U34608.1 | NT | Mus musculus alpha-1(XVII) collagen (COL18A1) gene, exon 1 and 2 |
| 3513 | 16878 | | 7.5 | 3.0E-03 | Y12500.1 | NT | C.elegans eamde gene |
| 4086 | 17241 | 30248 | 7.76 | 3.0E-03 | AV762392.1 | EST_HUMAN | AV762392 MDS Homo sapiens cDNA clone MDSBSG01 5' |
| 4086 | 17241 | 30249 | 7.76 | 3.0E-03 | AV762392.1 | EST_HUMAN | AV762392 MDS Homo sapiens cDNA clone MDSBSG01 5' |
| 4147 | 17299 | 30291 | 1.67 | 3.0E-03 | AF92278.1 | EST_HUMAN | af04f09.y6 Gessler Wilms tumor Homo sapiens cDNA clone IMAGE:1155689 5' |
| 4515 | 17654 | 30642 | 5.53 | 3.0E-03 | AJ011432.1 | NT | Rattus norvegicus gdnf gene |
| 4641 | 17777 | 30759 | 4.62 | 3.0E-03 | AF536141.1 | EST_HUMAN | xu8.P10.H3 canon Homo sapiens cDNA 3' |

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Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 4858 | 17891 | 30878 | 0.89 | 3.0E-03 | AL118087.1 | EST_HUMAN | DKFZp761B0712_r1_761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761B0712 5' |
| 4955 | 18085 | 31061 | 2.05 | 3.0E-03 | A1732754.1 | EST_HUMAN | ab18a08.x5 Stragene lung (#837210) Homo sapiens cDNA clone IMAGE:841142 3' similar to contains Alu repetitive element |
| 4978 | 18107 | 31083 | 5.53 | 3.0E-03 | BE787045.1 | EST_HUMAN | 601482715F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3885483 5' |
| 5255 | 18375 | 31341 | 0.9 | 3.0E-03 | 4508414 | NT | Homo sapiens RAP1, GTPase activating protein 1 (RAP1GA1) mRNA |
| 5255 | 18375 | 31342 | 0.9 | 3.0E-03 | 4508414 | NT | Homo sapiens RAP1, GTPase activating protein 1 (RAP1GA1) mRNA |
| 5262 | 18381 | 31347 | 1.75 | 3.0E-03 | A1163880.1 | EST_HUMAN | q880b10.x1 Soares_fetal_lung_NhlL19W Homo sapiens cDNA clone IMAGE:1745275 3' similar to SW/AP17_MOUSE Q00380 CLATHRIN COAT ASSEMBLY PROTEIN AP17, contains MSR1.12 MER22 repetitive element |
| 5360 | 18562 | 31451 | 3.36 | 3.0E-03 | 8922493 | NT | Homo sapiens hypothetical protein FLJ10539 (FLJ10539), mRNA |
| 5673 | 18867 | 32153 | 1.09 | 3.0E-03 | AJ244998.1 | NT | Mus musculus mRNA for hypothetical protein (ORF2 ortholog) |
| 5744 | 18937 | 32237 | 0.83 | 3.0E-03 | U35323.1 | NT | Mus musculus H2-M alpha chain (H2-Ma) gene, H2-M beta 2 chain (H2-Mb2) gene, H2-M beta 1 chain (H2-Mb1) gene, low molecular weight protein 2 Lmp2 (Lmp2) gene, complete cds |
| 6663 | 19941 | 33231 | 9.72 | 3.0E-03 | AA465701.1 | EST_HUMAN | aat3f10.r1 Soares_NhlMPu_S1 Homo sapiens cDNA clone IMAGE:813163 5' |
| 7168 | 20301 | 33744 | 0.75 | 3.0E-03 | D37977.1 | NT | Fugu rubripes mRNA for sodium channel alpha subunit, partial cds |
| 7354 | 20433 | 33895 | 1.38 | 3.0E-03 | AJ011419.1 | NT | Kluyveromyces marxianus pop3 gene for purine-cytosine permease |
| 7891 | 20758 | 34241 | 3.71 | 3.0E-03 | AB021736.1 | NT | Oryza sativa gene for bZIP protein, complete cds |
| 8124 | 21206 | 34726 | 0.9 | 3.0E-03 | BF333088.1 | EST_HUMAN | RC0-BT0812-260900-032-e07 BT0812 Homo sapiens cDNA |
| 8124 | 21206 | 34727 | 0.9 | 3.0E-03 | BF333058.1 | EST_HUMAN | RC0-BT0812-260900-032-e07 BT0812 Homo sapiens cDNA |
| 8380 | 21431 | 34955 | 1.4 | 3.0E-03 | N92680.1 | EST_HUMAN | 2827004.s1 Soares_parathyroid_tumor_NhlIPA Homo sapiens cDNA clone IMAGE:304783 3' |
| 8490 | 21571 | 35108 | 0.47 | 3.0E-03 | A1860028.1 | EST_HUMAN | w124409.x1 NCL CGAP_UH1 Homo sapiens cDNA clone IMAGE:2425641 3' |
| 8510 | 21591 | | 0.63 | 3.0E-03 | M63498.1 | NT | S.cerevisiae UGA35 gene, complete cds |
| 8665 | 21736 | 35276 | 1.34 | 3.0E-03 | P51089 | SWISSPROT | HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A2 HOMOLOG 1 (HNRNP A2(A)) |
| 8679 | 21759 | 35295 | 1.5 | 3.0E-03 | AL163288.2 | NT | Homo sapiens chromosome 21 segment HS21C068 |
| 8786 | 21865 | | 1.45 | 3.0E-03 | Q8QMB1 | SWISSPROT | NONSTRUCTURAL PROTEIN V |
| 9192 | 22270 | | 10.8 | 3.0E-03 | AW613774.1 | EST_HUMAN | h860f10.x1 NCL CGAP_GU1 Homo sapiens cDNA clone IMAGE:2869131 3' similar to contains L1.11 L1 repetitive element |
| 9245 | 22322 | 35866 | 4.26 | 3.0E-03 | AL161599.2 | NT | Arididopsis thaliana DNA chromosome 4, contig fragment No. 85 |
| 9269 | 22345 | 35896 | 0.96 | 3.0E-03 | A1016731.1 | EST_HUMAN | ov03d12.x1 NCL CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1838247 3' similar to gb:X57138_mai |
| 9280 | 22356 | 35908 | 0.53 | 3.0E-03 | BF335078.1 | EST_HUMAN | HISTONE H2B.2 (HUMAN) |
| 9609 | 22584 | | 0.78 | 3.0E-03 | D90901.1 | NT | 602035590F1 NCL CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4189958 5' |
| 9646 | 21099 | 34804 | 0.77 | 3.0E-03 | BE154670.1 | EST_HUMAN | Synechococcus sp. PCC6803 complete genome, 3/27, 271600-402289 |
| 9836 | 22876 | | 0.56 | 3.0E-03 | P03355 | SWISSPROT | PM3-HT0344-071299-003-d07 HT0344 Homo sapiens cDNA POL POLYPROTEIN [CONTAINS: PROTEASE; REVERSE TRANSCRIPTASE; RIBONUCLEASE H] |

Page 186 of 550
Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 9908 | 22848 | | 6.61 | 3.0E-03 | P08672 | SWISSPROT | CIRCUMSPOROITE PROTEIN PRECURSOR (CS) |
| | | | | | | | RETROVIRUS-RELATED POLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE ; ENDONUCLEASE] |
| 10099 | 23137 | 38738 | 2.31 | 3.0E-03 | P11389 | SWISSPROT | |
| 10200 | 23237 | 38827 | 1.44 | 3.0E-03 | P51989 | SWISSPROT | HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A2 HOMOLOG 1 (HNRNP A2(A)) |
| 10344 | 23379 | 36990 | 3.89 | 3.0E-03 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 11085 | 24159 | | 2.67 | 3.0E-03 | 5903028 | NT | Homo sapiens ATP/GTP-binding protein (HEAB), mRNA |
| 11458 | 20756 | 34241 | 1.45 | 3.0E-03 | AB021736.1 | NT | Oryza sativa gene for bZIP protein, complete cds |
| 11722 | 23908 | 37532 | 1.47 | 3.0E-03 | P22531 | SWISSPROT | SMALL PROLINE RICH PROTEIN II (SPR-II) (CLONE 930) |
| 11732 | 23918 | 37543 | 1.9 | 3.0E-03 | AF268285.1 | NT | Homo sapiens golgin-like protein (GLP) gene, complete cds |
| 11770 | 24782 | 38467 | 2.52 | 3.0E-03 | AF094481.1 | NT | Homo sapiens tritucleotide repeat DNA binding protein p20-CGGBP (CGGBP) gene, complete cds |
| 11770 | 24782 | 38468 | 2.52 | 3.0E-03 | AF094481.1 | NT | Homo sapiens tritucleotide repeat DNA binding protein p20-CGGBP (CGGBP) gene, complete cds |
| | | | | | | | RETROVIRUS-RELATED POLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE ; ENDONUCLEASE] |
| 11849 | 24838 | 38532 | 1.36 | 3.0E-03 | P11389 | SWISSPROT | |
| 12077 | 25057 | | 1.46 | 3.0E-03 | AW294812.1 | EST_HUMAN | U1-H192-ah1-08-0-J1.s1 NCL CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2726842 3' |
| 12199 | 25948 | | 1.62 | 3.0E-03 | AB25056.1 | EST_HUMAN | promoter-6.E07.r bYumor Homo sapiens cDNA 5' |
| | | | | | | | contains L1.13 MER26 repetitive element ; |
| 12235 | 25179 | 38346 | 1.24 | 3.0E-03 | AA093154.1 | EST_HUMAN | Homo sapiens gene for CMP-N-acetylneuraminic acid hydroxylase, partial cds |
| 12296 | 26090 | | 1.78 | 3.0E-03 | AB009688.1 | NT | Rattus norvegicus mRNA for connexin36 (cx36 gene) |
| 12481 | 25333 | 32057 | 1.23 | 3.0E-03 | AJ286282.1 | NT | |
| 520 | 13721 | 28746 | 0.87 | 2.0E-03 | Q04852 | SWISSPROT | RING CANAL PROTEIN (KELCH PROTEIN) |
| 528 | 13721 | 28747 | 0.87 | 2.0E-03 | Q04852 | SWISSPROT | RING CANAL PROTEIN (KELCH PROTEIN) |
| 808 | 16023 | | 11.88 | 2.0E-03 | T70874.1 | EST_HUMAN | yA15h03.r1 Soares fetal liver spleen 1NLS Homo sapiens cDNA clone IMAGE:108341 5' |
| 1384 | 14548 | 27624 | 2.08 | 2.0E-03 | M20783.1 | NT | Human alpha-2-plasmin inhibitor gene, exons 6 and 7 |
| 1397 | 14551 | 27626 | 1.42 | 2.0E-03 | AA661605.1 | EST_HUMAN | nu8807.s1 NCL CGAP_A1V1 Homo sapiens cDNA clone IMAGE:1217593 |
| 1408 | 14660 | 27634 | 20.85 | 2.0E-03 | AF284446.1 | NT | Homo sapiens tumor-related protein DRC2 (DRC2) gene, complete cds |
| | | | | | | | PLATELET-ENDOTHELIAL TETRASPAN ANTIGEN 3 (PETA-3) (GP27) (MEMBRANE GLYCOPROTEIN SFA-1) (CD151 ANTIGEN) |
| 1519 | 14672 | 27754 | 1.1 | 2.0E-03 | P48509 | SWISSPROT | Homo sapiens procollagen-lysine, 2-oxoglutarate 5-dioxygenase (lysine hydroxylase, Ehlers-Danlos syndrome type VI) (PLOD) mRNA |
| 1546 | 14698 | 27776 | 2.26 | 2.0E-03 | 4557836 | NT | Homo sapiens procollagen-lysine, 2-oxoglutarate 5-dioxygenase (lysine hydroxylase, Ehlers-Danlos syndrome type VI) (PLOD) mRNA |
| 1546 | 14698 | 27777 | 2.26 | 2.0E-03 | 4557836 | NT | COLLAGEN ALPHA 5(V) CHAIN PRECURSOR |
| 1621 | 14773 | | 6.17 | 2.0E-03 | P28400 | SWISSPROT | |
| 1811 | 14980 | 28053 | 1.27 | 2.0E-03 | AA450138.1 | EST_HUMAN | 2x42a10.r1 Soares total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:789114 5' |
| 1928 | 15071 | | 1.09 | 2.0E-03 | BE144908.1 | EST_HUMAN | CM2-HT10183-08T099-018-003 HT10183 Homo sapiens cDNA |

Page 187 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 2051 | 15192 | 28305 | 1.59 | 2.0E-03 | AF302691.1 | NT | Mus musculus myelin expression factor-3-like protein gene, partial cds |
| 2324 | 16468 | 28588 | 0.97 | 2.0E-03 | AL163302.2 | NT | Homo sapiens chromosome 21 segment HS21C102 |
| 2847 | 16770 | 28680 | 4.93 | 2.0E-03 | AW137782.1 | EST_HUMAN | UIH-B11-adj-g-10-p-UI.st NCI CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2717010 3' |
| 3503 | 16670 | 28680 | 4.92 | 2.0E-03 | AA450138.1 | EST_HUMAN | UIH-B11-adj-g-10-p-UI.st NCI CGAP_Sub3 Homo sapiens cDNA clone IMAGE:789114 5' |
| 3510 | 16675 | 28686 | 0.96 | 2.0E-03 | BF568955.1 | EST_HUMAN | 602183860T1 NIH_MGC_42 Homo sapiens cDNA clone IMAGE:4300070 3' |
| 3768 | 16617 | 28919 | 5.48 | 2.0E-03 | XB7344.1 | NT | H. sapiens DMA, DMB, HLA-Z1, IPP2, LMP2, TAP1, LMP7, DOB, DOB2 and RING8, 9, 13 and 14 genes |
| 4062 | 17218 | 30226 | 0.62 | 2.0E-03 | AB040802.1 | NT | Rattus norvegicus mRNA for SREB1, complete cds |
| 4228 | 17378 | 30364 | 2.39 | 2.0E-03 | P03374 | SWISSPROT | ENV POLYPROTEIN [CONTAINS: COAT PROTEIN GP52; COAT PROTEIN GP36] |
| 4290 | 17435 | 30423 | 1.02 | 2.0E-03 | AA178693.1 | EST_HUMAN | Zp13h01.1 Stratiogene fetal retina 837202 Homo sapiens cDNA clone IMAGE:609381 5' |
| 4336 | 17479 | | 13.93 | 2.0E-03 | U69491.1 | NT | Rattus norvegicus 5-hydroxytryptamine7 receptor gene, partial cds |
| 4632 | 17670 | | 1.99 | 2.0E-03 | L35079.1 | NT | Porcine rotavirus major outer capsid protein (VP7) mRNA, complete cds |
| 4647 | 17685 | | 1.22 | 2.0E-03 | AW297380.1 | EST_HUMAN | UIH-B11-adj-g-10-p-UI.st NCI CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2730413 3' |
| 4551 | 17689 | 30670 | 1.05 | 2.0E-03 | AI064746.1 | EST_HUMAN | HA0507 Human fetal liver cDNA library Homo sapiens cDNA |
| 4668 | 17603 | 30790 | 2.11 | 2.0E-03 | L42512.1 | NT | Drosophila melanogaster short-titled class 2 (shs) mRNA, complete cds |
| 4668 | 17603 | 30781 | 2.11 | 2.0E-03 | L42512.1 | NT | Drosophila melanogaster short-titled class 2 (shs) mRNA, complete cds |
| 4828 | 17961 | 30849 | 1.02 | 2.0E-03 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 4832 | 17965 | | 1.57 | 2.0E-03 | R87773.1 | EST_HUMAN | yo45602.s1 Soares adult brain N2b-4HB55Y Homo sapiens cDNA clone IMAGE:180890 3' |
| 4862 | 18081 | 31067 | 1.07 | 2.0E-03 | P11000 | SWISSPROT | WALL-ASSOCIATED PROTEIN PRECURSOR |
| 5132 | 18257 | 31223 | 0.84 | 2.0E-03 | AF003528.1 | NT | Homo sapiens X-linked anthrillite ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 5604 | 18768 | 31849 | 1.57 | 2.0E-03 | BF241410.1 | EST_HUMAN | 601876385F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4104892 5' |
| 5745 | 25810 | 32238 | 1.83 | 2.0E-03 | AB014593.1 | NT | Homo sapiens mRNA for KIAA0693 protein, partial cds |
| 5828 | 18018 | 32325 | 2.08 | 2.0E-03 | U63711.1 | NT | Xenopus laevis xefillin mRNA, complete cds |
| 6236 | 19411 | 32768 | 3.93 | 2.0E-03 | P23477 | SWISSPROT | ATP-DEPENDENT NUCLEASE SUBUNIT B |
| 6236 | 19411 | 32759 | 3.93 | 2.0E-03 | P23477 | SWISSPROT | ATP-DEPENDENT NUCLEASE SUBUNIT B |
| 6476 | 19643 | 33004 | 2.28 | 2.0E-03 | Q95203 | SWISSPROT | CARBONIC ANHYDRASE-RELATED PROTEIN 2 PRECURSOR (CARP 2) (CA-XI) |
| 6476 | 19643 | 33005 | 2.28 | 2.0E-03 | Q95203 | SWISSPROT | CARBONIC ANHYDRASE-RELATED PROTEIN 2 PRECURSOR (CARP 2) (CA-XI) |
| 6478 | 19845 | 33007 | 7.66 | 2.0E-03 | BF308187.1 | EST_HUMAN | 601887434F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4121408 5' |
| 6514 | 19879 | 33049 | 2.16 | 2.0E-03 | Q9UKP4 | SWISSPROT | ADAM-TS 7 PRECURSOR (A DISINTEGRIN AND METALLOPROTEINASE WITH THROMBOSPONDIN MOTIFS 7) (ADAMTS-7) (ADAM-TS7) |
| 6515 | 19880 | 33050 | 0.76 | 2.0E-03 | AV703075.1 | EST_HUMAN | AV709075 ADC Homo sapiens cDNA clone ADCAEF08 6' |
| 6544 | 19708 | 33082 | 1.45 | 2.0E-03 | X94451.1 | NT | L. esculentum mRNA for lysyl-RNA synthetase (LysRS) |

Page 188 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6730 | 19892 | | 1.36 | 2.0E-03 | AI991089.1 | EST_HUMAN | wu36h09.x1 Soares Dieckgrafe_colon_NHCD Homo sapiens cDNA clone IMAGE:2622177 3' similar to SW_RL29_HUMAN P47914 60S RIBOSOMAL PROTEIN L29; contains element MSR1 repetitive element; |
| 6778 | 19930 | 35326 | 0.7 | 2.0E-03 | AA677831.1 | EST_HUMAN | z13a11.s1 Soares fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:430652 3' |
| 7098 | 18525 | 31517 | 1.35 | 2.0E-03 | AB038502.1 | NT | Oeanchaballitis elegans mRNA for galectin LEC-11, complete cds |
| 7231 | 20136 | 33554 | 3.3 | 2.0E-03 | BE087988.1 | EST_HUMAN | GM4-BT0368-061289-054-d01 BT0368 Homo sapiens cDNA |
| 7294 | 20378 | 33833 | 0.65 | 2.0E-03 | AI288883.1 | EST_HUMAN | qm98d11.x1 NCL_GCAP_Lu8 Homo sapiens cDNA clone IMAGE:189885 3' |
| 7444 | 20521 | 33894 | 0.8 | 2.0E-03 | T88569.1 | EST_HUMAN | y477g10.r1 Soares fetal_liver_spleen_1NFLS Homo sapiens cDNA clone IMAGE:114308 5' |
| 7794 | 20850 | 34342 | 1.41 | 2.0E-03 | P07354 | SWISSPROT | PROTEOGLYCAN LINK PROTEIN PRECURSOR (CARTILAGE LINK PROTEIN) (LP) |
| | | | | | | | H37f08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2934036 3' similar to TR-Q60876 |
| 8241 | 21323 | 34840 | 2.97 | 2.0E-03 | AW592004.1 | EST_HUMAN | Q60978 JERKY.; |
| | | | | | | | y42g08.s1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:284442 3' similar to contains |
| 8412 | 21453 | 35023 | 5.49 | 2.0E-03 | N20287.1 | EST_HUMAN | L1.b2 L1 repetitive element; |
| | | | | | | | y42g08.s1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:284442 3' similar to contains |
| 8412 | 21453 | 35024 | 5.49 | 2.0E-03 | N20287.1 | EST_HUMAN | L1.b2 L1 repetitive element; |
| 8459 | 21640 | 35069 | 0.84 | 2.0E-03 | Q92350 | SWISSPROT | HYPOTHETICAL 32.8 KD PROTEIN C8G9.05 IN CHROMOSOME 1 |
| 8481 | 21662 | 35097 | 1.09 | 2.0E-03 | P18137 | SWISSPROT | LAMININ ALPHA-1 CHAIN PRECURSOR (LAMININ A CHAIN) |
| 8638 | 21817 | 35153 | 1.04 | 2.0E-03 | 6005855 | NT | Homo sapiens Retina-derived POU-domain factor-1 (RPF-1), mRNA |
| 8638 | 21817 | 35154 | 1.04 | 2.0E-03 | 6005855 | NT | Homo sapiens Retina-derived POU-domain factor-1 (RPF-1), mRNA |
| 8661 | 21942 | 35181 | 1.03 | 2.0E-03 | AU136879.1 | EST_HUMAN | AU136879 PLACE1 Homo sapiens cDNA clone PLACE104839 5' |
| | | | | | | | Homo sapiens ASCL3 gene, CEGP1 gene, C11orf14 gene, C11orf15 gene, C11orf16 gene and C11orf17 gene |
| 8614 | 21894 | | 0.9 | 2.0E-03 | AJ400877.1 | NT | |
| 9386 | 19018 | 32323 | 0.78 | 2.0E-03 | AW796111.1 | EST_HUMAN | MR2-UM0025-300300-102-f02 UM0025 Homo sapiens cDNA |
| 9396 | 19018 | 32324 | 0.78 | 2.0E-03 | AW796111.1 | EST_HUMAN | MR2-UM0025-300300-102-f02 UM0025 Homo sapiens cDNA |
| | | | | | | | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 9441 | 22816 | 36078 | 1.07 | 2.0E-03 | AF224689.1 | NT | |
| 9728 | 22791 | 36362 | 0.71 | 2.0E-03 | H50832.1 | EST_HUMAN | yp85a09.s1 Soares fetal_liver_spleen_1NFLS Homo sapiens cDNA clone IMAGE:194288 3' |
| 9728 | 22791 | 36363 | 0.71 | 2.0E-03 | H50832.1 | EST_HUMAN | yp85a09.s1 Soares fetal_liver_spleen_1NFLS Homo sapiens cDNA clone IMAGE:194288 3' |
| | | | | | | | TENASCIN PRECURSOR (TN) (HEXABRACHION) (CYTOTACTIN) (NEURONECTIN) (GNEM) (JI) (MIOTENDINOUS ANTIGEN) (GLIOMA-ASSOCIATED-EXTRACELLULAR MATRIX ANTIGEN) (GP 150-229) (TENASCIN-C) (TN-C) |
| 9758 | 22893 | 36264 | 3.33 | 2.0E-03 | P24821 | SWISSPROT | BETA-GALACTOSIDASE PRECURSOR (LACTASE) |
| 9806 | 22908 | 36493 | 1.22 | 2.0E-03 | P48982 | SWISSPROT | BETA-GALACTOSIDASE PRECURSOR (LACTASE) |
| 9888 | 22908 | 36494 | 1.22 | 2.0E-03 | P48982 | SWISSPROT | BETA-GALACTOSIDASE PRECURSOR (LACTASE) |
| 9924 | 22984 | 36552 | 0.6 | 2.0E-03 | AF097732.1 | NT | Homo sapiens caspase recruitment domain-containing protein (BCL10) gene, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 9924 | 22964 | 36653 | 0.6 | 2.0E-03 | AF097732.1 | NT | Homo sapiens caspase recruitment domain-containing protein (BCL10) gene, complete cds |
| 10119 | 23157 | 38755 | 0.86 | 2.0E-03 | AW884289.1 | EST_HUMAN | QV3-OT0064-080400-144-601 OT0064 Homo sapiens cDNA |
| 10248 | 23283 | | 6.26 | 2.0E-03 | AA251376.1 | EST_HUMAN | zs10a08.s1 NCL_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:684764 3' |
| 10828 | 23662 | 37270 | 0.49 | 2.0E-03 | BF367388.1 | EST_HUMAN | MR2-GN0030-140900-001-e05 GN0030 Homo sapiens cDNA |
| 11263 | 24334 | | 2.14 | 2.0E-03 | M86524.1 | NT | Human dystrophin gene |
| 11778 | 20850 | 34342 | 3.79 | 2.0E-03 | P07354 | SWISSPROT | PROTEOGLYCAN LINK PROTEIN PRECURSOR (CARTILAGE LINK PROTEIN) (LP) |
| 11836 | 24825 | | 2.86 | 2.0E-03 | BF330909.1 | EST_HUMAN | RC3-BT0333-310800-115-g04 BT0333 Homo sapiens cDNA |
| 11844 | 24833 | 38626 | 9.84 | 2.0E-03 | Z11740.1 | NT | H. sapiens variable number tandem repeat (VNTR) locus DNA |
| 12180 | 25140 | | 3.37 | 2.0E-03 | A1825745.1 | EST_HUMAN | Iy65n03.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2283988 3' similar to SW:VATG_MANSE |
| 12198 | 25155 | 38633 | 4.31 | 2.0E-03 | AF157516.2 | NT | Q25532 VACUOLAR ATP SYNTHASE SUBUNIT G ; |
| 12222 | 26171 | 38836 | 1.71 | 2.0E-03 | A1084325.1 | EST_HUMAN | Homo sapiens SEL1L (SEL1L) gene, partial cds |
| 12245 | 18497 | | 4.86 | 2.0E-03 | AJ245167.1 | EST_HUMAN | cy43g08.s1 Soares_papillary tumor_NbHPA Homo sapiens cDNA clone IMAGE:1668834 3' similar to |
| 12462 | 26140 | | 4 | 2.0E-03 | AV697866.1 | EST_HUMAN | TR:P87535 P87535 PG-PLA1 PRECURSOR ; |
| 12661 | 26383 | 32039 | 1.29 | 2.0E-03 | Y00608.1 | NT | Gemelus dromedarius cvhp19 gene for immunoglobulin heavy chain variable region |
| | | | | | | | AV697868 GKC Homo sapiens cDNA clone GKCGXD05 5' |
| | | | | | | | H. sapiens M1 gene for muscarinic acetylcholine receptor |
| 12897 | 26564 | | 1.38 | 2.0E-03 | AF129756.1 | NT | Homo sapiens MSH55 gene, partial cds; and CUC1, DDAH, G6b, G6c, G6d, G6e, G6f, BAT5, G5b, CSK2B, BAT4, G4, Apo M, BAT3, BAT2, AIF-1, TC7, LST-1, LTB, TNF, and LTA genes, complete cds |
| 13090 | 25927 | | 2.48 | 2.0E-03 | AV697966.1 | EST_HUMAN | AV697965 GKC Homo sapiens cDNA clone GKCGXD05 5' |
| 452 | 13048 | 26684 | 1.38 | 1.0E-03 | H86471.1 | EST_HUMAN | y09c08.r1 Soares_pituitary_gland_N3HPG Homo sapiens cDNA clone IMAGE:232334 5' |
| 852 | 14029 | 27091 | 1.55 | 1.0E-03 | A1720263.1 | EST_HUMAN | es70b08.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2334039 3' similar to TR:Q13825 |
| 852 | 14029 | 27092 | 1.55 | 1.0E-03 | A1720263.1 | EST_HUMAN | Q13825 AU-BINDING PROTEINENOVYL-COA HYDRATASE ; |
| 1119 | 14284 | 27339 | 2.61 | 1.0E-03 | A1865788.1 | EST_HUMAN | es70b08.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2334039 3' similar to TR:Q13825 |
| 1139 | 14304 | 27360 | 1.61 | 1.0E-03 | A1064572.1 | EST_HUMAN | Q13825 AU-BINDING PROTEINENOVYL-COA HYDRATASE ; |
| 1192 | 14354 | 27412 | 0.85 | 1.0E-03 | A1892616.1 | EST_HUMAN | es70b08.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2334039 3' similar to TR:Q13825 |
| 2084 | 16224 | 28346 | 3.42 | 1.0E-03 | P47808 | SWISSPROT | Q13825 AU-BINDING PROTEINENOVYL-COA HYDRATASE ; |
| 2222 | 15358 | 28466 | 9.52 | 1.0E-03 | AJ131016.1 | NT | wk86a08.x1 NCL_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2422268 3' |
| 3044 | 16220 | 28241 | 1.37 | 1.0E-03 | AB033117.1 | NT | wk83a10.x1 NCL_CGAP_Mel15 Homo sapiens cDNA clone IMAGE:2551242 3' |
| | | | | | | | wd86a01.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2338440 3' similar to contains Alu repetitive element; |
| | | | | | | | HIGH MOLECULAR WEIGHT FORM OF MYOSIN I (HMWMI) |
| | | | | | | | Homo sapiens SCL gene locus |
| | | | | | | | Homo sapiens mRNA for KIAA1291 protein, partial cds |
| | | | | | | | CARBONIC ANHYDRASE VI PRECURSOR (CARBONATE DEHYDRATASE VI) (CA-VI) (SECRETED) |
| | | | | | | | CARBONIC ANHYDRASE (SALIVARY CARBONIC ANHYDRASE) |
| 3280 | 16434 | 29451 | 2.81 | 1.0E-03 | P18915 | SWISSPROT | |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 3280 | 16434 | 29452 | 2.81 | 1.0E-03 | P18915 | SWISSPROT | CARBONIC ANHYDRASE VI PRECURSOR (CARBONATE DEHYDRATASE VI) (CA-VI) (SECRETED) |
| 3374 | 16546 | 29560 | 0.75 | 1.0E-03 | P08547 | SWISSPROT | CARBONIC ANHYDRASE (SALIVARY CARBONIC ANHYDRASE) |
| 3632 | 16766 | 29813 | 0.94 | 1.0E-03 | U68061.1 | NT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 3632 | 16766 | 29814 | 0.94 | 1.0E-03 | U68061.1 | NT | Human MUC2 gene, promoter region |
| 3755 | 16916 | | 1.43 | 1.0E-03 | AB044400.1 | NT | Human MUC2 gene, promoter region |
| 4034 | 17190 | 30200 | 0.98 | 1.0E-03 | AW170562.1 | EST_HUMAN | Human sapiens SVMT gene for synaptic vesicle monoamine transporter, exons 14, 15 |
| 4044 | 17200 | 30211 | 0.91 | 1.0E-03 | Z49649.1 | NT | Human sapiens SVMT gene for synaptic vesicle monoamine transporter, exons 14, 15 |
| 4568 | 17694 | 30673 | 2.34 | 1.0E-03 | BE689162.1 | EST_HUMAN | S cerevisiae chromosome X reading frame ORF YJR149w |
| 4598 | 17735 | 30715 | 4.89 | 1.0E-03 | BE246538.1 | EST_HUMAN | TCBAP1D4809 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HQSC project=TCBA Homo sapiens cDNA clone TCBAP4909 |
| 4785 | 17920 | 30908 | 0.81 | 1.0E-03 | U29449.1 | NT | Cenorchabitis elegans spliced leader RNA (SL3 alpha), (SL4), and (SL5) genes |
| 4945 | 18075 | 31060 | 2.54 | 1.0E-03 | A073485.1 | EST_HUMAN | ov45c04.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1640262 3' |
| 4945 | 18075 | 31061 | 2.54 | 1.0E-03 | A073485.1 | EST_HUMAN | ov45c04.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1640262 3' |
| 4948 | 18078 | | 6 | 1.0E-03 | BE154067.1 | EST_HUMAN | PMO-HT0339-200400-070-D02-H10339 Homo sapiens cDNA |
| 6188 | 18310 | 31276 | 15.5 | 1.0E-03 | O46409 | SWISSPROT | APOLIPOPROTEIN A-IV PRECURSOR (APO-AIV) |
| 5324 | 18437 | 31407 | 4.73 | 1.0E-03 | BE219340.1 | EST_HUMAN | hw51f02.x1 NCI CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3176955 3' |
| 5423 | 18624 | 31600 | 2 | 1.0E-03 | AA290951.1 | EST_HUMAN | zs44f01.r1 NCI CGAP_GCB1 Homo sapiens cDNA clone IMAGE:700345 5' |
| 5618 | 18716 | 31730 | 3.57 | 1.0E-03 | AJ006345.1 | NT | Homo sapiens KVLQ11 gene |
| 5572 | 18768 | 31809 | 1.64 | 1.0E-03 | K03332.1 | NT | Epstein-Barr virus (AG876 isolate) U2-IR2 domain encoding nuclear protein EBNA2, complete cds |
| 5572 | 18768 | 31810 | 1.84 | 1.0E-03 | K03332.1 | NT | Epstein-Barr virus (AG876 isolate) U2-IR2 domain encoding nuclear protein EBNA2, complete cds |
| 5680 | 18884 | 32176 | 0.85 | 1.0E-03 | BE796491.1 | EST_HUMAN | 60158941F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943984 5' |
| 5686 | 18880 | 32181 | 1.77 | 1.0E-03 | Q02388 | SWISSPROT | COLLAGEN ALPHA 1(VII) CHAIN PRECURSOR (LONG-CHAIN COLLAGEN) (LC COLLAGEN) |
| 5751 | 18943 | 32244 | 0.8 | 1.0E-03 | N41974.1 | EST_HUMAN | W07h08.r1 Soares melanocyte 2N6HM Homo sapiens cDNA clone IMAGE:270587 5' similar to contains element MERB repetitive element; |
| 5751 | 18943 | 32245 | 0.8 | 1.0E-03 | N41974.1 | EST_HUMAN | W07h08.r1 Soares melanocyte 2N6HM Homo sapiens cDNA clone IMAGE:270587 5' similar to contains element MERB repetitive element; |
| 6033 | 19216 | | 0.59 | 1.0E-03 | BF541639.1 | EST_HUMAN | 602068042F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:4068907 5' |
| 6144 | 19322 | | 2.75 | 1.0E-03 | X07699.1 | NT | Mouse nucleolin gene |
| 6184 | 19360 | 32708 | 0.85 | 1.0E-03 | BE063939.2 | EST_HUMAN | 60163751R1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3875693 3' |
| 6321 | 19493 | | 8.77 | 1.0E-03 | 11626178 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1), mRNA |
| 6464 | 19631 | 32992 | 1.11 | 1.0E-03 | T87761.1 | EST_HUMAN | y693a1.1.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:115772 5' |
| 6538 | 19702 | | 1.68 | 1.0E-03 | AW602585.1 | EST_HUMAN | QV3-NN1024-260400-171-g05 NN1024 Homo sapiens cDNA |

Page 191 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 6895 | 20046 | 33455 | 1.41 | 1.0E-03 | L77570.1 | NT | Homo sapiens DiGeorge syndrome critical region, centromeric end |
| 7302 | 20384 | 33843 | 2.81 | 1.0E-03 | D18826.1 | NT | Human gene for fourth somatostatin receptor subtype |
| 7658 | 20724 | | 1.12 | 1.0E-03 | AJ228042.1 | NT | Homo sapiens 959 kb contig between AML1 and GBR1 on chromosome 21q22, segment 2/3 |
| | | | | | | | Homo sapiens X28 region near ALD locus containing dual specificity phosphatase 9 (DUSP9), ribosomal protein L18a (RPL18a), Ca2+/Calmodulin-dependent protein kinase I (CAMKI), creatine transporter (CRTR), CDM protein (CDM), adrenoleukodystrophy protein > |
| 7817 | 20872 | 34370 | 1.98 | 1.0E-03 | U52111.2 | NT | Human TRPM-2 protein gene, exons 1, 2 and 3 |
| 7885 | 20937 | 34443 | 3.44 | 1.0E-03 | M63378.1 | NT | 601491081F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3893278 5' |
| 7934 | 20984 | 34492 | 0.79 | 1.0E-03 | BE880044.1 | EST_HUMAN | Homo sapiens prolactin-releasing peptide receptor gene, 5' flanking region |
| 8073 | 21155 | 34674 | 0.66 | 1.0E-03 | AF274881.1 | NT | Homo sapiens partial steerin-1 gene |
| 8136 | 21218 | 34739 | 5.02 | 1.0E-03 | AJ251873.1 | NT | zK87c09.s1 Soares_pregnant_dierus_NbtHPU Homo sapiens cDNA clone IMAGE:480788 3' similar to contains L1.1 L1 repetitive element; |
| 8337 | 21418 | 34844 | 1.95 | 1.0E-03 | AA122270.1 | EST_HUMAN | Homo sapiens exostosin-like protein 1 (EXTL1) gene, exons 2 through 11, and complete cds |
| 8438 | 21519 | 35048 | 2.35 | 1.0E-03 | AF153980.1 | NT | Rattus norvegicus plasma membrane Ca2+ ATPase isoform 3 (PMCA3) gene, 5' flanking region |
| 8825 | 21705 | 35241 | 0.75 | 1.0E-03 | U28997.1 | NT | V. carteri gene encoding volvoxopsin |
| 8744 | 22223 | | 1.48 | 1.0E-03 | Y11204.1 | NT | GM3-LT0079-170200-092-e07 LT0079 Homo sapiens cDNA |
| 9170 | 22248 | 35791 | 0.65 | 1.0E-03 | AW840353.1 | EST_HUMAN | Homo sapiens X28 region near ALD locus containing dual specificity phosphatase 9 (DUSP9), ribosomal protein L18a (RPL18a), Ca2+/Calmodulin-dependent protein kinase I (CAMKI), creatine transporter (CRTR), CDM protein (CDM), adrenoleukodystrophy protein > |
| 9281 | 22357 | | 0.65 | 1.0E-03 | U62111.2 | NT | Human class III alcohol dehydrogenase (ADH5) chi subunit mRNA, complete cds |
| 9318 | 22395 | 35947 | 3.89 | 1.0E-03 | M30471.1 | NT | Human class III alcohol dehydrogenase (ADH5) chi subunit mRNA, complete cds |
| 9319 | 22395 | 35948 | 3.89 | 1.0E-03 | M30471.1 | NT | Human class III alcohol dehydrogenase (ADH5) chi subunit mRNA, complete cds |
| | | | | | | | gbM87388 TATA-BINDING PROTEIN-ASSOCIATED PHOSPHOPROTEIN (HUMAN); |
| 9798 | 22836 | | 0.47 | 1.0E-03 | A1247482.1 | EST_HUMAN | Thermotoga neapolitana alpha-1,8-galactosidase (ega) gene, complete cds |
| 9807 | 22847 | 36424 | 2.06 | 1.0E-03 | AF011400.1 | NT | Thermotoga neapolitana alpha-1,8-galactosidase (ega) gene, complete cds |
| 9807 | 22847 | 36425 | 2.06 | 1.0E-03 | AF011400.1 | NT | BONE PROTEOGLYCAN II PRECURSOR (PG-S2) (DECORIN) (PG40) (DERMATAN SULFATE |
| | | | | | | | PROTEOGLYCAN-II) (DSPG) |
| 10025 | 23063 | 36660 | 0.88 | 1.0E-03 | Q01129 | SWISSPROT | Homo sapiens glycican 3 (GPC3) gene, partial cds and flanking repeat regions |
| 10366 | 23401 | 37012 | 9.37 | 1.0E-03 | AF003529.1 | NT | Homo sapiens transducin beta-like 2 (TBL2) gene, complete cds |
| 10372 | 23407 | | 0.75 | 1.0E-03 | AF097485.1 | NT | ov7508.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1843175 3' similar to contains MER39.b1 |
| | | | | | | | IMER39 MER39 repetitive element; |
| 10522 | 23557 | 37105 | 1.08 | 1.0E-03 | AJ024350.1 | EST_HUMAN | Pseudomonas aeruginosa PAO1, section 323 of 528 of the complete genome |
| 10823 | 23856 | 37478 | 0.51 | 1.0E-03 | AE004782.1 | NT | Pseudomonas aeruginosa PAO1, section 323 of 528 of the complete genome |
| 10823 | 23856 | 37479 | 0.51 | 1.0E-03 | AE004782.1 | NT | Pseudomonas aeruginosa PAO1, section 323 of 528 of the complete genome |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 10830 | 23863 | | 0.53 | 1.0E-03 | AA706202.1 | EST_HUMAN | ag93f12.51 Strategene hnt neuron (#637233) Homo sapiens cDNA clone IMAGE:1142063 3' similar to contains Alu repetitive element; |
| 10902 | 23868 | 37617 | 2.01 | 1.0E-03 | AW362393.1 | EST_HUMAN | RC1-CT0278-181089-011-a09 CT0278 Homo sapiens cDNA |
| 10902 | 23866 | 37618 | 2.01 | 1.0E-03 | AW362393.1 | EST_HUMAN | RC1-CT0278-181089-011-a09 CT0278 Homo sapiens cDNA |
| 10969 | 24068 | 37702 | 2.46 | 1.0E-03 | BE170859.1 | EST_HUMAN | QV3-HT0543-220300-730-a03 HT0543 Homo sapiens cDNA |
| 11092 | 24138 | | 2.03 | 1.0E-03 | A1583847.1 | EST_HUMAN | tt73e12.x1 NC1_CGAP_HSC3 Homo sapiens cDNA clone IMAGE:2246446 3' similar to TR:Q26185 Q26185 PVA1 GENE.; |
| 11425 | 24166 | | 2.63 | 1.0E-03 | AV759949.1 | EST_HUMAN | AV759949 MDS Homo sapiens cDNA clone MDSDDF11 5' |
| 11858 | 24846 | 38543 | 2.17 | 1.0E-03 | P23468 | SWISSPROT | PROTEIN-TYROSINE PHOSPHATASE DELTA PRECURSOR (R-PTP-DELTA) |
| 11858 | 24846 | 38544 | 2.17 | 1.0E-03 | P23468 | SWISSPROT | PROTEIN-TYROSINE PHOSPHATASE DELTA PRECURSOR (R-PTP-DELTA) |
| 11858 | 24846 | 38544 | 2.17 | 1.0E-03 | P23468 | SWISSPROT | PROTEIN GRAINY-HEAD (DNA-BINDING PROTEIN ELF-1) (ELEMENT BINDING ACTIVITY) |
| 11924 | 24910 | 38511 | 1.53 | 1.0E-03 | P13002 | SWISSPROT | (TRANSCRIPTION FACTOR NTF-1) |
| 11924 | 24910 | 38612 | 1.53 | 1.0E-03 | P13002 | SWISSPROT | PROTEIN GRAINY-HEAD (DNA-BINDING PROTEIN ELF-1) (ELEMENT BINDING ACTIVITY) |
| 12176 | 25138 | 38631 | 5.51 | 1.0E-03 | BE694488.1 | EST_HUMAN | (TRANSCRIPTION FACTOR NTF-1) |
| 12679 | 26118 | | 7.37 | 1.0E-03 | A1347355.1 | EST_HUMAN | 601433087F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918524 5' |
| 12812 | 26142 | 31551 | 3.83 | 1.0E-03 | BE780572.1 | EST_HUMAN | 601433087F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918524 5' |
| 12889 | 25690 | | 1.17 | 1.0E-03 | 11465834 | NT | 601433087F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918524 5' |
| 5327 | 18440 | 31408 | 0.7 | 9.0E-04 | P08548 | SWISSPROT | Nicotiana tabacum chloroplast, complete genome |
| 5769 | 18988 | | 2.08 | 9.0E-04 | P06727 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 6386 | 19537 | | 0.59 | 9.0E-04 | AJ008345.1 | NT | APOLIPOPROTEIN A-IV PRECURSOR (APO-AIV) |
| 6615 | 19775 | 33166 | 1.27 | 9.0E-04 | P02381 | SWISSPROT | Homo sapiens KVLQ11 gene |
| 9843 | 22883 | | 1.46 | 9.0E-04 | AB037203.1 | NT | MITOCHONDRIAL RIBOSOMAL PROTEIN VAR1 |
| 1517 | 14670 | | 1.07 | 8.0E-04 | X86469.1 | NT | Glycerhiza glabra GgBAS1 mRNA for beta-amylin synthase, complete cds |
| 4296 | 17439 | | 4.4 | 8.0E-04 | P08547 | SWISSPROT | X.laëvis mRNA for C4SR protein |
| 4887 | 19017 | | 2.5 | 8.0E-04 | U29185.1 | NT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 11412 | 24473 | 31002 | 2.59 | 8.0E-04 | AA777084.1 | EST_HUMAN | Homo sapiens priort protein (PrP) gene, complete cds |
| 11576 | 24631 | | 1.87 | 8.0E-04 | A1571099.1 | EST_HUMAN | z224c10.81 Soares fetal heart NBH119W Homo sapiens cDNA clone IMAGE:377874 3' |
| 1874 | 15018 | 28127 | 1.11 | 7.0E-04 | L41825.1 | NT | tr85a08.x1 NC1_CGAP_U2 Homo sapiens cDNA clone IMAGE:2176310 3' |
| 2472 | 15599 | 28724 | 1.45 | 7.0E-04 | U29185.1 | NT | Homo sapiens CYP17 gene, 5' end |
| 2178 | 15894 | 29004 | 1.33 | 7.0E-04 | AL163210.2 | NT | Homo sapiens priort protein (PrP) gene, complete cds |
| 3363 | 18526 | 29540 | 1.4 | 7.0E-04 | 4885170 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| | | | | | | | Homo sapiens chromosome X open reading frame 6 (CXORF6) mRNA |

Page 193 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6221 | 19398 | 32745 | 0.93 | 7.0E-04 | AA516212.1 | EST_HUMAN | hg55g12.s1 NCL_CGAP_Lip2 Homo sapiens cDNA clone IMAGE:939718 similar to contains L1, L3 L1 L1 repetitive element; |
| 6842 | 18801 | | 2.33 | 7.0E-04 | A1769331.1 | EST_HUMAN | wg5509.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2367209 3' |
| 7376 | 20455 | | 0.72 | 7.0E-04 | AK024446.1 | NT | Homo sapiens mRNA for FLJ00335 protein, partial cds |
| 10008 | 23048 | 36639 | 0.65 | 7.0E-04 | P13497 | SWISSPROT | BONE MORPHOGENETIC PROTEIN 1 PRECURSOR (BMP-1) |
| 10008 | 23046 | 36640 | 0.65 | 7.0E-04 | P13497 | SWISSPROT | BONE MORPHOGENETIC PROTEIN 1 PRECURSOR (BMP-1) |
| 11865 | 24853 | | 1.7 | 7.0E-04 | U78027.1 | NT | Homo sapiens Bruton's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44L) and FTP3 (FTP3) genes, complete cds |
| 11893 | 24881 | 38578 | 3.76 | 7.0E-04 | Z40561.1 | EST_HUMAN | HSC28A072 normalized Infant brain cDNA Homo sapiens cDNA clone c-28a07 3' |
| 12723 | 25481 | | 9.28 | 7.0E-04 | BE077941.1 | EST_HUMAN | CM1-BT0814-110300-142-b12 BT0814 Homo sapiens cDNA |
| 13001 | 25650 | | 2.68 | 7.0E-04 | R17338.1 | EST_HUMAN | y913c08.r1 Soares Infant brain 1N1B Homo sapiens cDNA clone IMAGE:32298 5' |
| 13038 | 25682 | | 5.43 | 7.0E-04 | 6005855 | NT | Homo sapiens Retina-derived POLJ-domain factor-1 (RPF-1), mRNA |
| 2760 | 16876 | | 0.97 | 6.0E-04 | BF341380.1 | EST_HUMAN | G02013339F1 NCL_CGAP_Bm64 Homo sapiens cDNA clone IMAGE:4149287 6' |
| 4069 | 17255 | 30232 | 1.64 | 6.0E-04 | A1862526.1 | EST_HUMAN | w15a11.x1 NCL_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2402876 3' |
| 4201 | 17350 | 30341 | 0.65 | 6.0E-04 | K01315.1 | NT | Homo sapiens epsilon-1 pseudogene (IGHEP1) gene, 5' flanking region |
| 4201 | 17350 | 30342 | 0.65 | 6.0E-04 | K01315.1 | NT | Homo sapiens epsilon-1 pseudogene (IGHEP1) gene, 5' flanking region |
| 4301 | 17444 | 30430 | 3.91 | 6.0E-04 | U45983.1 | NT | Homo sapiens CCR8 chemokine receptor (CMKBR8) gene, complete cds |
| 4665 | 17703 | 30683 | 0.89 | 6.0E-04 | BE173435.1 | EST_HUMAN | RC2-HT0560-190200-011-409 HT0560 Homo sapiens cDNA |
| 4665 | 17703 | 30684 | 0.89 | 6.0E-04 | BE173435.1 | EST_HUMAN | RC2-HT0560-190200-011-409 HT0560 Homo sapiens cDNA |
| 8050 | 21133 | | 4.58 | 6.0E-04 | P46408 | SWISSPROT | GLUCOSE TRANSPORTER TYPE 5, SMALL INTESTINE (FRUCTOSE TRANSPORTER) |
| 8205 | 21287 | | 0.51 | 6.0E-04 | H92947.1 | EST_HUMAN | y84c11.c1 Soares_pineal_gland_N3HPG Homo sapiens cDNA clone IMAGE:231866 3' similar to contains LOR1 repetitive element; |
| 10185 | 23222 | | 3.28 | 6.0E-04 | AL048507.2 | EST_HUMAN | DKFZp396M2024_r1 699 (synonym: huter1) Homo sapiens cDNA clone DKFZp566M2024 |
| 10216 | 23251 | | 0.53 | 6.0E-04 | A1858286.1 | EST_HUMAN | w155g02.x1 NCL_CGAP_U11 Homo sapiens cDNA clone IMAGE:2426830 3' |
| 10285 | 23320 | 36922 | 2.29 | 6.0E-04 | BE005850.1 | EST_HUMAN | RC2-BN0120-250400-012-h11 BN0120 Homo sapiens cDNA |
| 10547 | 23582 | | 0.84 | 6.0E-04 | AF287478.1 | NT | Lycichinus variegatus embryonic blastocoele extracellular matrix protein precursor (ECM3) mRNA, complete cds |
| 11774 | 24768 | 38462 | 2.07 | 6.0E-04 | AJ228042.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22 segment 2/3 |
| 11866 | 24854 | 38549 | 2.47 | 6.0E-04 | AW013847.1 | EST_HUMAN | U1-H-B10-8ab-e-09-Q-UJ.s1 NCL_CGAP_Sub1 Homo sapiens cDNA clone IMAGE:2708825 3' |
| 11937 | 24923 | | 1.62 | 6.0E-04 | Q01768 | SWISSPROT | NUCLEOSIDE DIPHOSPHATE KINASE B (NDK B) (NDP KINASE B) (NM23-M2) (P18) |
| 12363 | 26007 | | 3.31 | 6.0E-04 | AW380519.1 | EST_HUMAN | RC1-HT0293-281193-012-c08 HT0293 Homo sapiens cDNA |
| 13226 | 25797 | | 14.14 | 6.0E-04 | A1817088.1 | EST_HUMAN | w176g11.x1 NCL_CGAP_Lu18 Homo sapiens cDNA clone IMAGE:2408804 3' similar to contains element L1 repetitive element; |
| 668 | 13884 | 26882 | 7.86 | 5.0E-04 | O10341 | SWISSPROT | HYPOTHETICAL 29.3 KD PROTEIN (ORF92) |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 1531 | 14684 | | 2.03 | 5.0E-04 | AW861844.1 | EST_HUMAN | QV0-CT0225-021089-030-007 CT0225 Homo sapiens cDNA |
| 3500 | 16637 | 29677 | 1.6 | 5.0E-04 | AA548931.1 | EST_HUMAN | nk27e11.s1 NCI_CGAP_Co11 Homo sapiens cDNA clone IMAGE:1014764 3' similar to contains Alu repetitive element; |
| 3809 | 16969 | 29972 | 0.94 | 5.0E-04 | Q9UKP4 | SWISSPROT | ADAM-TS 7 PRECURSOR (A DISINTEGRIN AND METALLOPROTEINASE WITH THROMBOSPONDIN MOTIFS 7) (ADAMTS-7) (ADAM-TS7) |
| 5589 | 18784 | 31830 | 2.51 | 5.0E-04 | AF248054.1 | NT | Bos taurus micromolar calcium activated neutral protease 1 (CAPN1) gene, exons 11-20, and partial cds |
| 6765 | 19821 | 33317 | 7.06 | 5.0E-04 | AA156080.1 | EST_HUMAN | z033b03.r1 Stragene clone (#937204) Homo sapiens cDNA clone IMAGE:588663 5' |
| 7534 | 20607 | 34082 | 9.01 | 5.0E-04 | M23804.1 | NT | Gorilla gorilla involucrin gene medium allele, complete cds |
| 8143 | 21225 | 34745 | 5.58 | 5.0E-04 | A188382.1 | EST_HUMAN | qd1306.x1 Scores_placenta_806weeks_2Nbl-IP8c9W Homo sapiens cDNA clone IMAGE:1723619 3' similar to gb-X31602.cds1 VASCULAR ENDOTHELIAL GROWTH FACTOR RECEPTOR 1 (HUMAN); contains Alu repetitive element; |
| 8498 | 21579 | 36115 | 0.95 | 5.0E-04 | AA814519.1 | EST_HUMAN | cd89e02.s1 NCI_CGAP_CCB1 Homo sapiens cDNA clone IMAGE:139228 3' similar to contains element MER22 repetitive element; |
| 9477 | 22534 | 36098 | 1.67 | 5.0E-04 | AA846546.1 | EST_HUMAN | q56903.s1 Scores_testis_NHT Homo sapiens cDNA clone IMAGE:1394357 3' |
| 9571 | 22713 | 36281 | 0.58 | 5.0E-04 | N83765.1 | EST_HUMAN | KK2745F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone KK2745 5' similar to |
| 9718 | 22783 | 36354 | 0.64 | 5.0E-04 | P29128 | SWISSPROT | REPETITIVE ELEMENT |
| 9809 | 22849 | 36428 | 4.78 | 5.0E-04 | AW270938.1 | EST_HUMAN | BIFUNCTIONAL ENDO-1,4-BETA-XYLANASE XYLA PRECURSOR |
| 10484 | 23619 | | 0.6 | 5.0E-04 | U50871.1 | NT | xe06e02.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2768858 3' |
| 11220 | 24269 | | 1.9 | 5.0E-04 | AL048607.2 | EST_HUMAN | Human familial Alzheimer's disease (STM2) gene, complete cds |
| 12012 | 18784 | 31830 | 15 | 5.0E-04 | AF248054.1 | NT | DKFZp686M2024_J1 586 (synonym: huler) Homo sapiens cDNA clone DKFZp686M2024 |
| 12301 | 25936 | | 2.39 | 5.0E-04 | AA588513.1 | EST_HUMAN | Bos taurus micromolar calcium activated neutral protease 1 (CAPN1) gene, exons 11-20, and partial cds |
| 12872 | 26981 | | 1.33 | 5.0E-04 | U63834.1 | NT | rf13h02.s1 NCI_CGAP_P11 Homo sapiens cDNA clone IMAGE:913876 |
| 403 | 13600 | | 0.76 | 4.0E-04 | BF241482.1 | EST_HUMAN | Human KIT protein and alternatively spliced KIT protein (KIT) gene, complete cds |
| 680 | 13874 | 26607 | 1.36 | 4.0E-04 | U32748.1 | NT | 601B7653AF1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4104897 5' |
| 870 | 14046 | 27111 | 1.55 | 4.0E-04 | A1720263.1 | EST_HUMAN | Haemophilus influenzae Rd section 63 of 163 of the complete genome |
| 870 | 14046 | 27112 | 1.55 | 4.0E-04 | A1720263.1 | EST_HUMAN | as70b08.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2334039 3' similar to TR-Q13825 |
| 1493 | 14646 | 27728 | 6.68 | 4.0E-04 | AW753358.1 | EST_HUMAN | Q13825 AU-BINDING PROTEIN/ENOVYL-COA HYDRATASE ; |
| 2148 | 15284 | 28410 | 1.87 | 4.0E-04 | AL163278.2 | NT | as70b08.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2334039 3' similar to TR-Q13825 |
| 2202 | 15337 | | 1.1 | 4.0E-04 | AL046704.1 | EST_HUMAN | Q13825 AU-BINDING PROTEIN/ENOVYL-COA HYDRATASE ; |
| | | | | | | | RC3-CT0254-130100-023-01 CT0254 Homo sapiens cDNA |
| | | | | | | | Homo sapiens chromosome 21 segment HS21C078 |
| | | | | | | | DKFZp434D059_r1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434D059 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 2891 | 18111 | 28927 | 2.04 | 4.0E-04 | O98815 | SWISSPROT | SERPIN-2 (SILK GUM PROTEIN 2) |
| 3233 | 18407 | 28420 | 2.78 | 4.0E-04 | AF281074.1 | NT | Homo sapiens neuropilin 2 (NRP2) gene, complete cds, alternatively spliced |
| 3397 | 18567 | 28583 | 0.60 | 4.0E-04 | A1720263.1 | EST_HUMAN | aa70b08.x1 Barstead cdon HPLRB7 Homo sapiens cDNA clone IMAGE:2334039 3' similar to TR:Q13825 |
| 3443 | 18611 | 28629 | 0.8 | 4.0E-04 | AV696824.1 | EST_HUMAN | Q13825 AU-BINDING PROTEIN/ENOVYL-COA HYDRATASE. ; |
| 4443 | 17683 | 30561 | 3.24 | 4.0E-04 | AA576331.1 | EST_HUMAN | AV696824 GKC Homo sapiens cDNA clone GKCFH07 5' |
| 4443 | 17683 | 30562 | 3.24 | 4.0E-04 | AA576331.1 | EST_HUMAN | rh10a10.s1 NCL CGAP_Cot1 Homo sapiens cDNA clone IMAGE:051830 3' similar to gb:M21121 T-CELL |
| 4668 | 17785 | 30781 | 2.33 | 4.0E-04 | AA086324.1 | EST_HUMAN | SPECIFIC RANTES PROTEIN PRECURSOR (HUMAN); |
| 5189 | 18320 | 31289 | 3.62 | 4.0E-04 | BE560660.1 | EST_HUMAN | rh10a10.s1 NCL CGAP_Cot1 Homo sapiens cDNA clone IMAGE:051830 3' similar to gb:M21121 T-CELL |
| 7418 | 20498 | 33965 | 1.55 | 4.0E-04 | P48442 | SWISSPROT | SPECIFIC RANTES PROTEIN PRECURSOR (HUMAN); |
| 7705 | 20770 | 34466 | 0.85 | 4.0E-04 | AL181568.2 | NT | zr61c08.s1 Stralagen muscle 937208 Homo sapiens cDNA clone IMAGE:562670 3' |
| 7896 | 20948 | 34466 | 0.8 | 4.0E-04 | AU122079.1 | EST_HUMAN | 601345895F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3878910 5' |
| 8733 | 21813 | 35348 | 3.64 | 4.0E-04 | BF240712.1 | EST_HUMAN | EXTRACELLULAR CALCIUM-SENSING RECEPTOR PRECURSOR (CASR) (PARATHYROID CELL |
| 8741 | 21820 | 35354 | 1.68 | 4.0E-04 | N25507.1 | EST_HUMAN | Arabisopsis thaliana DNA chromosome 4, contig fragment No. 66 |
| 9882 | 22832 | 36515 | 3.37 | 4.0E-04 | A1025699.1 | EST_HUMAN | AU122079 MAMMA1 Homo sapiens cDNA clone MAMMA1001820 5' |
| 10045 | 23083 | | 1.12 | 4.0E-04 | AF022855.1 | NT | 601876985F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4089700 5' |
| 12891 | 26908 | | 1.56 | 4.0E-04 | AF254822.1 | NT | yk39e12.r1 Soares melanocyte 2N6HM Homo sapiens cDNA clone IMAGE:264142 5' |
| 160 | 13385 | 26415 | 3.21 | 3.0E-04 | AL119436.1 | EST_HUMAN | ov87h03.s1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:1644341 3' |
| 200 | 13423 | 26454 | 1.7 | 3.0E-04 | P49259 | SWISSPROT | Mus musculus neuropilin-2 (e17) mRNA, alternatively spliced, complete cds |
| 803 | 14078 | 27144 | 1.63 | 3.0E-04 | U83991.1 | NT | Homo sapiens SMARCA4 isoform (SMARCA4) gene, complete cds, alternatively spliced |
| 1886 | 15030 | 28137 | 1.7 | 3.0E-04 | A1262100.1 | EST_HUMAN | DKFZp761J221.J1 761 (synonym: hary2) Homo sapiens cDNA clone DKFZp761J221 5' |
| 1901 | 15044 | | 0.97 | 3.0E-04 | A139674.1 | EST_HUMAN | 180 KD SECRETORY PHOSPHOLIPASE A2 RECEPTOR PRECURSOR (PLA2-R) |
| 3383 | 16554 | 29568 | 4.35 | 3.0E-04 | P26147 | SWISSPROT | Human short chain acyl CoA dehydrogenase gene, exons 1 and 2 |
| 4071 | 17227 | 30234 | 4.94 | 3.0E-04 | P49448 | SWISSPROT | q228a03.y1 NCL CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2028197 5' |
| 4167 | 17317 | | 1.36 | 3.0E-04 | AJ271735.1 | NT | h23a02.x1 NCL CGAP_P128 Homo sapiens cDNA clone IMAGE:2118082 3' |
| 4205 | 17354 | | 1.06 | 3.0E-04 | BE146009.1 | EST_HUMAN | INTERNALIN B PRECURSOR |
| 4635 | 17771 | | 1.16 | 3.0E-04 | BE148546.1 | EST_HUMAN | GLUTAMATE DEHYDROGENASE 2 PRECURSOR (GDH) |
| 4937 | 18067 | | 5.2 | 3.0E-04 | BE153778.1 | EST_HUMAN | Homo sapiens Xq pseudautosomal region; segment 1/2 |
| 5004 | 18133 | 31107 | 0.65 | 3.0E-04 | AW637723.1 | EST_HUMAN | RCO-HT0014-310599-028 HT0014 Homo sapiens cDNA |
| 6271 | 19445 | | 5.58 | 3.0E-04 | AL163281.2 | NT | MRQ-HT0241-030200-008-001 HT0241 Homo sapiens cDNA |
| 6959 | 20187 | 33611 | 1.54 | 3.0E-04 | AL163278.2 | NT | PMQ-HT0339-190200-007-g12 HT0339 Homo sapiens cDNA |
| | | | | | | | QV3-DT0045-221289-046-009 DT0045 Homo sapiens cDNA |
| | | | | | | | Homo sapiens chromosome 21 segment HS21C081 |
| | | | | | | | Homo sapiens chromosome 21 segment HS21C078 |

Page 196 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 7130 | 18656 | 31471 | 0.67 | 3.0E-04 | AW989381.1 | EST_HUMAN | RC4NN0027-060400-011-508 NN0027 Homo sapiens cDNA |
| 7765 | 20824 | 34316 | 0.73 | 3.0E-04 | P23468 | SWISSPROT | PROTEIN-TYROSINE PHOSPHATASE DELTA PRECURSOR (R-PTP-DELTA) |
| 8454 | 21535 | 35065 | 2.16 | 3.0E-04 | P22607 | SWISSPROT | FIBROBLAST GROWTH FACTOR RECEPTOR 3 PRECURSOR (FGFR-3) |
| 10124 | 23162 | 36760 | 1.26 | 3.0E-04 | AA454055.1 | EST_HUMAN | z448408.t1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:795471 5' similar to gb:M62762 |
| 10381 | 23416 | 37025 | 0.46 | 3.0E-04 | AI992139.1 | EST_HUMAN | VACUOLAR ATP SYNTHASE 16 KD PROTEOLIPID SUBUNIT (HUMAN); w176a1.1.x1 Soares thymus_NHT Homo sapiens cDNA clone IMAGE:2513276 3' |
| 10876 | 23710 | 37318 | 1.98 | 3.0E-04 | AA781201.1 | EST_HUMAN | aj24g05.a1 Soares testis_NHT Homo sapiens cDNA clone 1381288 3' similar to gb:M36072 60S RIBOSOMAL PROTEIN L7A (HUMAN); nc38e04.t1 NCI CGAP_P12 Homo sapiens cDNA clone IMAGE:1010430 similar to contains L1.12 L1 repetitive element; |
| 12248 | 26164 | 31555 | 2.39 | 3.0E-04 | AA228301.1 | EST_HUMAN | Homo sapiens mRNA for KIAA0749 protein, partial cds |
| 12646 | 25987 | 31769 | 2.54 | 3.0E-04 | AB019292.1 | NT | DKFZp547L185.t1 647 (synonym: hibr1) Homo sapiens cDNA clone DKFZp547L185 5' |
| 13114 | 26727 | | 4.81 | 3.0E-04 | AL134483.1 | EST_HUMAN | Homo sapiens SCG10 like-protein, helicase-like protein NHL, M88, and ADP-ribosylation factor related protein 1 (ARFRP1) genes, complete cds |
| 180 | 13403 | 26432 | 1.33 | 2.0E-04 | AF217796.1 | NT | AU146707 HEMBB7 Homo sapiens cDNA clone HEMBB1001253 3' |
| 481 | 13685 | 26719 | 2.67 | 2.0E-04 | AU146707.1 | EST_HUMAN | Human dystrophin gene |
| 830 | 14103 | 27168 | 5.02 | 2.0E-04 | M86524.1 | NT | Human dystrophin gene |
| 830 | 14105 | 27169 | 5.02 | 2.0E-04 | M86524.1 | NT | Human dystrophin gene |
| 1206 | 14368 | | 2.78 | 2.0E-04 | AI286021.1 | EST_HUMAN | qh56d11.x1 Soares_NFL_I_GBC_S1 Homo sapiens cDNA clone IMAGE:1855052 3' similar to contains MER3.b2 MER3 repetitive element; |
| 1213 | 14374 | | 2.6 | 2.0E-04 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 1879 | 15023 | | 1.71 | 2.0E-04 | AF224288.1 | NT | Mus musculus 5' flanking region of Pib3 gene |
| 2257 | 15350 | | 1.21 | 2.0E-04 | AA478980.1 | EST_HUMAN | z195b05.a1 Soares ovary tumor Nb-HOT Homo sapiens cDNA clone IMAGE:740337 3' similar to contains Alu repetitive element |
| 2641 | 15764 | 28378 | 6.42 | 2.0E-04 | U68061.1 | NT | Human germline T-cell receptor beta chain TCRBV17S1A1T, TCRBV291, TCRBV10S1P, TCRBV28S1P, TCRBV19S1P, TCRBV15S1, TCRBV11S1A1T, HVB rebb, TCRBV28S1P, TCRBV34S1, TCRBV14S1, TCRBV3S1, TCRBV4S1A1T, TRY4, TRY6, TRY7, TRY8, TCRBD1, TCRBD1S1, TCRB1192.> |
| 3052 | 16228 | 29248 | 1.23 | 2.0E-04 | AI124529.1 | EST_HUMAN | am58c09.x1 Johnson frontal cortex Homo sapiens cDNA clone IMAGE:1639760 3' |
| 3415 | 16534 | 29600 | 0.82 | 2.0E-04 | 5174736 | NT | Homo sapiens tubulin, beta, 4 (TUBB4) mRNA |
| 3622 | 16598 | 28597 | 2.58 | 2.0E-04 | BE082317.1 | EST_HUMAN | QV2-BT0636-970500-194-b07 BT0636 Homo sapiens cDNA |
| 4022 | 17178 | 30187 | 0.98 | 2.0E-04 | AW678441.1 | EST_HUMAN | EST380550 IMAGE resequences, MAGP Homo sapiens cDNA |
| 4261 | 17406 | | 5.6 | 2.0E-04 | U01029.1 | NT | Phaseolus vulgaris nitrate reductase (PVNR2) gene, complete cds |
| 4791 | 17826 | 30914 | 1.75 | 2.0E-04 | H96265.1 | EST_HUMAN | yu01et11.1 Soares pineal_gland_N3HPG Homo sapiens cDNA clone IMAGE:232556 5' |
| 4781 | 17826 | 30915 | 1.76 | 2.0E-04 | H96265.1 | EST_HUMAN | yu01et11.1 Soares pineal_gland_N3HPG Homo sapiens cDNA clone IMAGE:232556 5' |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 4916 | 18048 | | 1.22 | 2.0E-04 | U09226.1 | NT | Gallus gallus proteasome 28 kDa subunit homolog mRNA, complete cds |
| 5171 | 18293 | 31256 | 1.47 | 2.0E-04 | AB037897.1 | NT | Danio rerio hagrorno gene, exons 1 to 6, partial cds |
| 5216 | 18337 | 31310 | 0.92 | 2.0E-04 | AF057019.1 | NT | Dicotyledonum discoidium interaphn (abpD) gene, complete cds |
| 5691 | 18935 | 32138 | 1.11 | 2.0E-04 | AV654352.1 | EST_HUMAN | AV654352 GLG Homo sapiens cDNA clone GLCDU10.3' |
| 5674 | 18869 | 32154 | 1.83 | 2.0E-04 | AI090862.1 | EST_HUMAN | IQ03611.1 NCI_CGAP_U03 Homo sapiens cDNA clone IMAGE:2207709.3' |
| 5668 | 19059 | 32365 | 0.93 | 2.0E-04 | AA296652.1 | EST_HUMAN | EST111191 Uterus Homo sapiens cDNA 5' end similar to EST containing O family repeat |
| 6068 | 19260 | 32578 | 0.92 | 2.0E-04 | AF140708.1 | NT | Homo sapiens cell cycle progression 3 protein (DNJ3) mRNA |
| 6368 | 19538 | 32897 | 1.01 | 2.0E-04 | AF140708.1 | NT | Mus musculus G protein coupled receptor gene, complete cds; and unknown gene |
| 7378 | 20457 | | 2.57 | 2.0E-04 | AU121712.1 | EST_HUMAN | AU121712 MAMMA1 Homo sapiens cDNA clone MAMMA1000788.5' |
| 7478 | 20553 | | 0.84 | 2.0E-04 | AW860663.1 | EST_HUMAN | QV0-CT0387-180300-187-e10 CT0387 Homo sapiens cDNA |
| 7798 | 20854 | | 13.68 | 2.0E-04 | P08548 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 7808 | 20863 | 34357 | 1.45 | 2.0E-04 | P54296 | SWISSPROT | MYOMESIN 2 (M-PROTEIN) (165 KD TITIN-ASSOCIATED PROTEIN) (165 KD CONNECTIN-ASSOCIATED PROTEIN) |
| 8142 | 21224 | 34743 | 1.02 | 2.0E-04 | U32444.2 | NT | Solanum lycopersicum phytochrome F (PHYF) gene, partial cds |
| 8142 | 21224 | 34744 | 1.02 | 2.0E-04 | U32444.2 | NT | Solanum lycopersicum phytochrome F (PHYF) gene, partial cds |
| 8479 | 21560 | 35094 | 1.24 | 2.0E-04 | AB026898.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 8479 | 21560 | 35095 | 1.24 | 2.0E-04 | AB026898.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 8783 | 21842 | 35383 | 2.14 | 2.0E-04 | AF020503.1 | NT | Homo sapiens FRA3B common fragile region, diadenosine triphosphate hydrolase (FHT) gene, exon 5 |
| 8941 | 22020 | 35561 | 0.67 | 2.0E-04 | XG7331.1 | NT | Human immunoglobulin C(mu) and C(delta) heavy chain genes (constant regions) |
| 9535 | 22800 | 36173 | 0.58 | 2.0E-04 | AA728700.1 | EST_HUMAN | el22a12.s1 Soares testis_NHT Homo sapiens cDNA clone 1343518.3' |
| 9619 | 22674 | 36244 | 0.47 | 2.0E-04 | P18716 | SWISSPROT | GASTRULA ZINC FINGER PROTEIN XLGZF28.1 |
| 10180 | 23217 | 36808 | 1.16 | 2.0E-04 | BE148303.1 | EST_HUMAN | RG3-HT0254-161099-011-b05 HT0254 Homo sapiens cDNA |
| 10223 | 23259 | 36847 | 2.06 | 2.0E-04 | AA405777.1 | EST_HUMAN | zu66c11.1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:742864.5' |
| 11098 | 24162 | 37798 | 3.88 | 2.0E-04 | AV730373.1 | EST_HUMAN | AV730373 HTIF Homo sapiens cDNA clone HTFAA01.5' |
| 11585 | 24638 | 38318 | 2.88 | 2.0E-04 | AI440282.1 | EST_HUMAN | tt01f11.1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2140269.3' similar to contains Alu repetitive element |
| 11710 | 24750 | 38443 | 2.39 | 2.0E-04 | AW136740.1 | EST_HUMAN | UHH-B11-adm-c-04-Q-U1.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2717190.3' |
| 11859 | 24847 | | 2.71 | 2.0E-04 | BE065781.1 | EST_HUMAN | RC2-BT0317-150200-011-H04 BT0317 Homo sapiens cDNA |
| 12106 | 25086 | 38760 | 32.04 | 2.0E-04 | P21733 | SWISSPROT | HYPOTHETICAL 29.1 KD PROTEIN IN CRYB1 5'REGION (ORF2) |
| 12121 | 25101 | 38806 | 2.05 | 2.0E-04 | L19248.1 | NT | Caenorhabditis elegans homeodomain protein (lin-39) mRNA, complete cds |
| 13191 | 26179 | | 1.28 | 2.0E-04 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 788 | 13987 | 27018 | 0.96 | 1.0E-04 | H98646.1 | EST_HUMAN | y28c09.e1 Soares melanocyte 2NbhM Homo sapiens cDNA clone IMAGE:282864 3' similar to contains L1 L1 repetitive element; |
| 1100 | 14285 | 27322 | 2.86 | 1.0E-04 | P11369 | SWISSPROT | RETROVIRUS-RELATED POLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE]; |
| 1138 | 14303 | 27358 | 3.79 | 1.0E-04 | AW013847.1 | EST_HUMAN | U1H-B10-aab-e-09-O-U1.e1 NCI_CGAP_Sub1 Homo sapiens cDNA clone IMAGE:2708825 3' |
| 1138 | 14303 | 27358 | 3.79 | 1.0E-04 | AW013847.1 | EST_HUMAN | U1H-B10-aab-e-09-O-U1.e1 NCI_CGAP_Sub1 Homo sapiens cDNA clone IMAGE:2708825 3' |
| 1363 | 14517 | | 2.65 | 1.0E-04 | U62918.1 | NT | Anguilla anguilla dopamine D1A1 receptor (d1A1) gene, complete cds |
| | | | | | | | Kaposi's sarcoma-associated herpesvirus ORF 68 gene, partial cds; and ORF 69, kaposin, v-FLIP, v-cyclin, latent nuclear antigen, ORF K14, v-GPCR, putative phosphatidylinositol 3-kinase, and LAMP (LAMP) genes, complete cds |
| 1657 | 14810 | 27894 | 4.23 | 1.0E-04 | AF148805.1 | NT | Kaposi's sarcoma-associated herpesvirus ORF 68 gene, partial cds; and ORF 69, kaposin, v-FLIP, v-cyclin, latent nuclear antigen, ORF K14, v-GPCR, putative phosphatidylinositol 3-kinase, and LAMP (LAMP) genes, complete cds |
| 1657 | 14810 | 27895 | 4.23 | 1.0E-04 | AF148805.1 | NT | Equus caballus DNA, chromosome 24q14, microsatellite TKY39 |
| 1908 | 15052 | 28164 | 2.02 | 1.0E-04 | AB048342.1 | NT | h45c08.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3176368 3' |
| 2752 | 16889 | 28978 | 1.06 | 1.0E-04 | BE218833.1 | EST_HUMAN | h45c08.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3176368 3' |
| 2762 | 18669 | 28979 | 1.06 | 1.0E-04 | BE218833.1 | EST_HUMAN | SPLICEOSOME ASSOCIATED PROTEIN 62 (SAP 62) (SPLICING FACTOR 3A SUBUNIT 2) (SF3A68) |
| 3356 | 16528 | 28543 | 1.18 | 1.0E-04 | Q62203 | SWISSPROT | h10111.x1 NCI_CGAP_Ga64 Homo sapiens cDNA clone IMAGE:2140289 3' similar to contains Alu repetitive element; |
| 3829 | 16989 | 29902 | 0.86 | 1.0E-04 | AI440282.1 | EST_HUMAN | Mouse alpha 1 type-IV collagen mRNA |
| 4171 | 17321 | 30314 | 1.72 | 1.0E-04 | M14042.1 | NT | AV847727 GLC Homo sapiens cDNA clone GLC8BD04 3' |
| 4192 | 17342 | 30335 | 1.12 | 1.0E-04 | AV847727.1 | EST_HUMAN | Homo sapiens KIAA0237 gene product (KIAA0237), mRNA |
| 5207 | 18328 | 31298 | 1.24 | 1.0E-04 | 7662015 | NT | Homo sapiens KIAA0237 gene product (KIAA0237), mRNA |
| 5207 | 18328 | 31299 | 1.24 | 1.0E-04 | P08547 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 5980 | 19165 | 32485 | 1.35 | 1.0E-04 | | SWISSPROT | h202612.s1 NCI_CGAP_P73 Homo sapiens cDNA clone IMAGE:252 |
| 6569 | 19731 | 33109 | 0.95 | 1.0E-04 | AA177111.1 | EST_HUMAN | h25604.e1 NCI_CGAP_AA1 Homo sapiens cDNA clone IMAGE:983488 3' similar to gb:M57282 |
| 6977 | 20205 | 33833 | 0.66 | 1.0E-04 | AA564561.1 | EST_HUMAN | KALLMANN SYNDROME PROTEIN PRECURSOR (HUMAN); contains Alu repetitive element |
| 7336 | 20417 | 33878 | 12.52 | 1.0E-04 | A1261980.1 | EST_HUMAN | q567d10.x1 NCI_CGAP_Ox32 Homo sapiens cDNA clone IMAGE:1885683 3' |
| 7744 | 20417 | 33878 | 13.49 | 1.0E-04 | A1261980.1 | EST_HUMAN | q567d10.x1 NCI_CGAP_Ox32 Homo sapiens cDNA clone IMAGE:1885683 3' |
| 8194 | 21268 | 34789 | 1.02 | 1.0E-04 | AA630453.1 | EST_HUMAN | ab54908.s1 Stragene lung (#837210) Homo sapiens cDNA clone IMAGE:864664 3' |
| 9538 | 22803 | 36175 | 2.75 | 1.0E-04 | A1806220.1 | EST_HUMAN | w25608.x1 Soares NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2356742 3' |
| 9548 | 22613 | 36182 | 0.76 | 1.0E-04 | O86989 | SWISSPROT | CYSTATIN-RELATED EPIDIDYMAL SPERMATOGENIC PROTEIN PRECURSOR (CYSTATIN 6) |
| 9825 | 22880 | | 0.76 | 1.0E-04 | T77153.1 | EST_HUMAN | y272c08.1 Soares fetal liver spleen TNFSF18 Homo sapiens cDNA clone IMAGE:113774 5' |
| 9846 | 22886 | 36466 | 1.06 | 1.0E-04 | 10863876 | NT | Homo sapiens phospholipid scramblase 1 (PLSCR1), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 10382 | 23417 | | 3.59 | 1.0E-04 | P08547 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 10420 | 23455 | 37060 | 1.12 | 1.0E-04 | P08548 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 10775 | 23808 | 37431 | 0.46 | 1.0E-04 | P51786 | SWISSPROT | ZINC FINGER PROTEIN 157 |
| 11622 | 24873 | | 2.3 | 1.0E-04 | M28587.1 | NT | Mouse alpha leukocyte interferon gene, complete cds |
| 11950 | 24938 | 38637 | 1.81 | 1.0E-04 | AB032988.1 | NT | Homo sapiens mRNA for KIAA1142 protein, partial cds |
| 11951 | 24976 | 38680 | 1.84 | 1.0E-04 | AW269061.1 | EST_HUMAN | xx49g12x1 Scarses_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2816518 3' |
| 12024 | 25008 | 38709 | 1.57 | 1.0E-04 | Q03696 | SWISSPROT | NEURONAL-GLIAL CELL ADHESION MOLECULE PRECURSOR (NG-CAM) |
| 12024 | 25008 | 38710 | 1.57 | 1.0E-04 | Q03696 | SWISSPROT | NEURONAL-GLIAL CELL ADHESION MOLECULE PRECURSOR (NG-CAM) |
| 716 | 13698 | 26938 | 2.44 | 9.0E-05 | AA718933.1 | EST_HUMAN | ta45c11.s1 Scarses_testis_NHT Homo sapiens cDNA clone 1292488 3' |
| 4198 | 17346 | 30338 | 1.13 | 9.0E-05 | A1762209.1 | EST_HUMAN | w154c11.x1 NCI_CGAP_Cot6 Homo sapiens cDNA clone IMAGE:2394088 3' similar to contains MIER8.11 |
| 6084 | 19266 | 32596 | 1.37 | 9.0E-05 | Q60716 | SWISSPROT | MER6 repetitive element ; |
| 7751 | 20811 | 34301 | 2.44 | 9.0E-05 | AW204953.1 | EST_HUMAN | PROLYL 4-HYDROXYLASE ALPHA-2 SUBUNIT PRECURSOR |
| 7751 | 20811 | 34302 | 2.44 | 9.0E-05 | AW204953.1 | EST_HUMAN | UI-H-B1-ar-d-05-0-UI.st NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2720289 3' |
| 9877 | 22639 | | 3.03 | 9.0E-05 | D85606.1 | NT | UI-H-B1-ar-d-05-0-UI.st NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2720289 3' |
| 9879 | 22641 | 38211 | 3.3 | 9.0E-05 | AF120982.1 | NT | Homo sapiens gene for cholesterylkin type-A receptor, complete cds |
| 11402 | 24463 | 38127 | 2.31 | 9.0E-05 | AW073078.1 | EST_HUMAN | Homo sapiens methyl-CpG binding protein 1 (MBD1) gene, exon 15b |
| 11518 | 24574 | 38251 | 1.51 | 9.0E-05 | A1267878.1 | EST_HUMAN | xa34g05.x1 NCI_CGAP_Br18 Homo sapiens cDNA clone IMAGE:2568728 3' similar to contains L1.12 L1 |
| 11916 | 19268 | 32595 | 3.41 | 9.0E-05 | Q60716 | SWISSPROT | repetitive element ; |
| | | | | | | | qy23f09.x1 NCI_CGAP_Lym8 Homo sapiens cDNA clone IMAGE:1982435 3' similar to contains element |
| | | | | | | | MIR repetitive element ; |
| | | | | | | | PROLYL 4-HYDROXYLASE ALPHA-2 SUBUNIT PRECURSOR |
| 12489 | 28016 | | 3.37 | 9.0E-05 | AF129756.1 | NT | Homo sapiens MSH55 gene, partial cds; and CLIC1, DDAH, G6b, G8a, G6b, G8d, G8e, G8f, BAT6, G5b, |
| 844 | 14022 | 27080 | 1.22 | 8.0E-05 | AJ251646.1 | NT | CSK2B, BAT4, G4, Apo M, BAT3, BAT2, AIF-1, 1C7, LST-1, LTB, TNF, and LTA genes, complete cds |
| 897 | 14063 | | 3.11 | 8.0E-05 | AJ251646.1 | NT | Pisum sativum mRNA for beta-1,3 glucanase (gns2 gene) |
| 3016 | 16191 | | 1.01 | 8.0E-05 | M83575.1 | NT | Pisum sativum mRNA for beta-1,3 glucanase (gns2 gene) |
| 4804 | 17741 | 30719 | 0.78 | 8.0E-05 | AW044605.1 | EST_HUMAN | Human platelet-derived growth factor A chain (PDGFA) gene, exons only |
| 8948 | 22027 | 35568 | 0.51 | 8.0E-05 | Y11666.1 | NT | wy78a04.x1 Scarses_NSF_FB_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2554638 3' |
| 11419 | 24480 | 38146 | 2.58 | 8.0E-05 | M09197.1 | NT | Mus musculus gene for hexokinase II, exon 1 (and joined CDS) |
| | | | | | | | Human haptoglobin and haptoglobin-related protein (HP and HPR) genes, complete cds |
| 13159 | 260C1 | | 1.78 | 8.0E-05 | AA279333.1 | EST_HUMAN | zs88h01.s1 NCI_CGAP_G0B1 Homo sapiens cDNA clone IMAGE:704693 3' similar to contains Alu |
| 357 | 13568 | 26596 | 3.16 | 7.0E-05 | AW847445.1 | EST_HUMAN | repetitive element; contains element MSR1 repetitive element ; |
| 357 | 13568 | 26597 | 3.16 | 7.0E-05 | AW847445.1 | EST_HUMAN | RC3-CT0208-220999-011-E04 CT0208 Homo sapiens cDNA |
| | | | | | | | RC3-CT0208-220999-011-E04 CT0208 Homo sapiens cDNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 581 | 13773 | 26793 | 1.14 | 7.0E-05 | L49075.1 | EST_HUMAN | HUM072014F Human fovea cDNA Homo sapiens cDNA clone EST HFD072014 |
| 581 | 13773 | 26794 | 1.14 | 7.0E-05 | L49075.1 | EST_HUMAN | HUM072014F Human fovea cDNA Homo sapiens cDNA clone EST HFD072014 |
| 1080 | 14246 | 27303 | 1.07 | 7.0E-05 | Q22949 | SWISSPROT | PROBABLE GLYCEROL-3-PHOSPHATE ACYLTRANSFERASE, MITOCHONDRIAL PRECURSOR (GPA1) |
| 2783 | 15699 | 28008 | 5.16 | 7.0E-05 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 3227 | 16401 | 28413 | 3.9 | 7.0E-05 | AB009080.1 | NT | Dicotyledonum discoidium gene for TRFA, complete cds |
| 4188 | 17318 | | 0.85 | 7.0E-05 | AF111187.2 | NT | Homo sapiens Jun dimerization protein gene, partial cds; cfos gene, complete cds; and unknown gene |
| 4492 | 17832 | 30614 | 1.88 | 7.0E-05 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 6041 | 18169 | 31144 | 0.88 | 7.0E-05 | 9845300 | NT | Rat cytomegalovirus Measitrich, complete genome |
| 8420 | 21501 | 35033 | 1.24 | 7.0E-05 | AA505582.1 | EST_HUMAN | h93g01.s1 NCI_CGAP_B2 Homo sapiens cDNA clone IMAGE:866086 3' |
| 9753 | 22681 | 36261 | 3.6 | 7.0E-05 | T07095.1 | EST_HUMAN | EST04684 Fetal brain, Striatum (cat#933206) Homo sapiens cDNA clone HFBED60 |
| 11430 | 24451 | | 5.87 | 7.0E-05 | 10835045 | NT | Homo sapiens sarcoglycan, epsilon (SGCE), mRNA |
| 2083 | 16223 | 28344 | 1.59 | 6.0E-05 | 4895170 | NT | Homo sapiens chromosome X open reading frame 6 (CXORF6) mRNA |
| 2083 | 16223 | 28345 | 1.59 | 6.0E-05 | 4895170 | NT | Homo sapiens chromosome X open reading frame 6 (CXORF6) mRNA |
| 2655 | 15778 | 28992 | 1.66 | 6.0E-05 | AI655241.1 | EST_HUMAN | w654h06.x1 NCI_CGAP_G08 Homo sapiens cDNA clone IMAGE:2309531 3' similar to gb:J03250 DNA TOPOISOMERASE I (HUMAN); |
| 2875 | 13860 | 26912 | 2.54 | 6.0E-05 | AF053630.1 | NT | Homo sapiens monocyte/macrophage elastase inhibitor gene, complete cds |
| 6034 | 19217 | 32538 | 3.26 | 6.0E-05 | Q12860 | SWISSPROT | CONTACTIN PRECURSOR (GLYCOPROTEIN GP135) |
| 6034 | 19217 | 32539 | 3.26 | 6.0E-05 | Q12860 | SWISSPROT | CONTACTIN PRECURSOR (GLYCOPROTEIN GP135) |
| 6533 | 19697 | 33070 | 1.5 | 6.0E-05 | N72829.1 | EST_HUMAN | y650g1.11 Soares fetal liver spleen 1NF5S Homo sapiens cDNA clone IMAGE:240212 5' |
| 7073 | 20126 | 33542 | 0.74 | 6.0E-05 | AA897680.1 | EST_HUMAN | q80a03.e1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1504589 3' |
| 8276 | 21358 | 34876 | 1.03 | 6.0E-05 | BE064410.1 | EST_HUMAN | RC4-BT0311-141189-011-h08 BT0311 Homo sapiens cDNA |
| 8276 | 21358 | 34877 | 1.03 | 6.0E-05 | BE064410.1 | EST_HUMAN | RC4-BT0311-141189-011-h08 BT0311 Homo sapiens cDNA |
| 8638 | 21718 | 35255 | 0.62 | 6.0E-05 | AA160482.1 | EST_HUMAN | 208c08.e1 Soares_pregnant uterus_Nb-IPU Homo sapiens cDNA clone IMAGE:491728 3' similar to contains element MER28 repetitive element; |
| 8643 | 21723 | 35260 | 2.82 | 6.0E-05 | AA160482.1 | EST_HUMAN | contains element MER28 repetitive element; |
| 8780 | 21859 | 35402 | 2.93 | 6.0E-05 | Q60401 | SWISSPROT | PM4-NN0050-310300-001-110 NN0050 Homo sapiens cDNA |
| 9452 | 22568 | 36134 | 1.59 | 6.0E-05 | P08607 | SWISSPROT | COMPLEMENT DEACCELERATING FACTOR PRECURSOR |
| 9462 | 22568 | 36135 | 1.59 | 6.0E-05 | P08607 | SWISSPROT | C4B-BINDING PROTEIN PRECURSOR (C4BP) |
| 9721 | 22768 | 36357 | 1.77 | 6.0E-05 | T94149.1 | EST_HUMAN | C4B-BINDING PROTEIN PRECURSOR (C4BP) |
| 9922 | 22962 | 36550 | 0.69 | 6.0E-05 | AA160482.1 | EST_HUMAN | y628c12.11 Striatum lung (h937210) Homo sapiens cDNA clone IMAGE:119092 6' |
| 10987 | 24066 | 37701 | 2.42 | 6.0E-05 | R76639.1 | EST_HUMAN | h87a03.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2874444 3' |
| | | | | | | | y69408.e1 Soares placenta N62HP Homo sapiens cDNA clone IMAGE:143635 3' similar to contains Alu repetitive element; contains LTR repetitive element; |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 11807 | 24797 | 38495 | 2.7 | 6.0E-05 | AA044015.1 | EST_HUMAN | z6802.1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:487035 5' |
| 12899 | 25999 | 31773 | 9.37 | 6.0E-05 | AW890110.1 | EST_HUMAN | MRO-NT0039-250400-001-009 NT0038 Homo sapiens cDNA |
| 1435 | 14588 | 27661 | 20.87 | 5.0E-05 | AW392086.1 | EST_HUMAN | QV4-ST0234-241189-040-h11 ST0234 Homo sapiens cDNA |
| 1912 | 16056 | | 1.07 | 5.0E-05 | 8923891 | NT | Homo sapiens 22kDa peroxidomal membrane protein-like (LOC55695), mRNA |
| 2824 | 16102 | 28116 | 0.84 | 5.0E-05 | AJ251038.1 | NT | Homo sapiens MEPA1 gene, promoter region and exon 1 |
| 4088 | 17243 | 30250 | 3.18 | 5.0E-05 | AJ251884.1 | NT | Homo sapiens partial SLG22A3 gene for extraneuronal monoamine transporter (EMT), exon 1 |
| 5842 | 18836 | 31913 | 11.81 | 5.0E-05 | X68855.1 | NT | Human MLC1 gene for embryonic myosin alkaline light chain, 3'UTR |
| 6115 | 19295 | 32830 | 3.58 | 5.0E-05 | AV653544.1 | EST_HUMAN | AV653544 GLG Homo sapiens cDNA clone GLGDMAO6 3' |
| 6287 | 19470 | 32825 | 0.97 | 5.0E-05 | AF260225.1 | NT | Homo sapiens TESTIN 2 and TESTIN 3 genes, complete cds, alternatively spliced |
| 7485 | 20560 | | 1.4 | 5.0E-05 | AB037984.1 | NT | Mus musculus gene for calretinin, exon 1 |
| 12480 | 25503 | | 5.26 | 5.0E-05 | P49193 | SWISSPROT | RETINAL-BINDING PROTEIN (RALBP) |
| 12759 | 25503 | | 6.9 | 5.0E-05 | P49193 | SWISSPROT | RETINAL-BINDING PROTEIN (RALBP) |
| 2888 | 13457 | | 2.73 | 4.0E-05 | U12821.1 | NT | Human renin (REN) gene, 5' flanking region |
| 4605 | 17742 | 30720 | 0.76 | 4.0E-05 | P49193 | SWISSPROT | RETINAL-BINDING PROTEIN (RALBP) |
| 4605 | 17742 | 30721 | 0.76 | 4.0E-05 | P49193 | SWISSPROT | RETINAL-BINDING PROTEIN (RALBP) |
| 4987 | 18126 | | 0.95 | 4.0E-05 | AF164488.1 | NT | Cryptosporidium parvum isolate Zaire 16 kDa glycoprotein gp15 gene, partial cds |
| 5131 | 18268 | 31222 | 0.73 | 4.0E-05 | AF212313.1 | NT | Drosophila melanogaster senseless protein (sens) gene, complete cds |
| 9723 | 22788 | | 6.75 | 4.0E-05 | AF202635.1 | NT | Homo sapiens PP1200 mRNA, complete cds |
| 10617 | 23651 | 37260 | 0.54 | 4.0E-05 | P23780 | SWISSPROT | BETA-GALACTOSIDASE PRECURSOR (LACTASE)(ACID BETA-GALACTOSIDASE) |
| 11007 | 24086 | 37723 | 4.14 | 4.0E-05 | AW627948.1 | EST_HUMAN | h86c07.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2974380 3' similar to contains element MIR repetitive element; |
| 12343 | 25248 | 32113 | 3.27 | 4.0E-05 | AL163252.2 | NT | Homo sapiens chromosome 21 segment HS21C052 |
| 12426 | 25302 | | 1.47 | 4.0E-05 | AW117580.1 | EST_HUMAN | xd63609.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2605192 3' |
| 13189 | 25773 | | 1.16 | 4.0E-05 | AA417753.1 | EST_HUMAN | z01611.s1 NCL_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:746282 3' |
| 698 | 13881 | 26914 | 0.8 | 3.0E-05 | AJ248081.1 | EST_HUMAN | qh84c10.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1849458 3' similar to contains Alu repetitive element; contains element KIR repetitive element; |
| 1084 | 14250 | 27307 | 1.16 | 3.0E-05 | AW273851.1 | EST_HUMAN | xc24g03.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2814100 3' |
| 1550 | 14702 | 27781 | 3.73 | 3.0E-05 | BE169211.1 | EST_HUMAN | PM1-HT0521-120200-001-e10 HT0521 Homo sapiens cDNA |
| 1550 | 14702 | 27782 | 3.73 | 3.0E-05 | BE169211.1 | EST_HUMAN | PM1-HT0521-120200-001-e10 HT0521 Homo sapiens cDNA |
| 3365 | 16537 | | 0.7 | 3.0E-05 | AJ288919.1 | EST_HUMAN | q91g11.x1 Soares_NbHPU_S1 Homo sapiens cDNA clone IMAGE:1879748 3' similar to TR:O08632 |
| 4501 | 17641 | 30825 | 7.81 | 3.0E-05 | BE169211.1 | EST_HUMAN | O08632 GLYCINE TYROSINE-RICH HAIR PROTEIN; |
| 4601 | 17641 | 30826 | 7.91 | 3.0E-05 | BE169211.1 | EST_HUMAN | PM1-HT0521-120200-001-e10 HT0521 Homo sapiens cDNA |
| 4588 | 17725 | 30707 | 1.11 | 3.0E-05 | AA368878.1 | EST_HUMAN | EST79996 Placenta 1 Homo sapiens cDNA similar to similar to p53-associated protein |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 4588 | 17725 | 30708 | 1.11 | 3.0E-05 | AA368879.1 | EST_HUMAN | EST178998 Placenta 1 Homo sapiens cDNA similar to p53-associated protein |
| 4741 | 17876 | 30859 | 0.93 | 3.0E-05 | AF149773.1 | NT | Homo sapiens NOD1 protein (NOD1) gene, exons 1, 2, and 3 |
| 4959 | 13881 | 26814 | 0.7 | 3.0E-05 | AI248061.1 | EST_HUMAN | ql64c10.x1 Soares fetal_liver_spleen_infl3_S1 Homo sapiens cDNA clone IMAGE:1849468 3' similar to contains Alu repetitive element contains element KER repetitive element; |
| 5876 | 18669 | 32155 | 1.72 | 3.0E-05 | 11072102 | NT | Mus musculus myosin light chain 2, precursor lymphocyte-specific (Myc2p), mRNA |
| 6897 | 20047 | 33456 | 1.21 | 3.0E-05 | AJ225762.1 | NT | Homo sapiens SYBL1 gene, exons 6-8 |
| 6897 | 20047 | 33457 | 1.21 | 3.0E-05 | AJ225762.1 | NT | Homo sapiens SYBL1 gene, exons 6-8 |
| 8082 | 21164 | 34681 | 2.28 | 3.0E-05 | BE733167.1 | EST_HUMAN | 807597451F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3842292 5' |
| 8547 | 21628 | 35166 | 1.55 | 3.0E-05 | AA284049.1 | EST_HUMAN | z60b06.x1 Stratagene cDNA brain S11 Homo sapiens cDNA clone IMAGE:701841 3' |
| 9094 | 22173 | 35718 | 1.58 | 3.0E-05 | AW770982.1 | EST_HUMAN | h94e08.x1 NCJ_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3008638 3' |
| 9098 | 22177 | 35721 | 1.63 | 3.0E-05 | 6912431 | NT | Homo sapiens interlukin-1 receptor antagonist homolog 1 (IL1HY1), mRNA |
| 9102 | 22181 | 35726 | 0.59 | 3.0E-05 | P43361 | SWISSPROT | MELANOMA-ASSOCIATED ANTIGEN 8 (MAGE-8 ANTIGEN) |
| 9331 | 22407 | | 0.51 | 3.0E-05 | X03273.1 | NT | Human Alu-family cluster 5' of alpha(1)-acid glycoprotein gene |
| 9521 | 22586 | 36154 | 1.4 | 3.0E-05 | AA372562.1 | EST_HUMAN | EST184475 Colon adenocarcinoma IV Homo sapiens cDNA 5' end |
| 9863 | 22903 | | 3.62 | 3.0E-05 | AI769331.1 | EST_HUMAN | wg3609.x1 Soares NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2387209 3' |
| 10765 | 23788 | 37403 | 0.92 | 3.0E-05 | Q62918 | SWISSPROT | PROTEIN KINASE C-BINDING PROTEIN NELL2 PRECURSOR (NELL-LIKE PROTEIN 2) |
| 10766 | 23788 | 37404 | 0.92 | 3.0E-05 | Q62918 | SWISSPROT | PROTEIN KINASE C-BINDING PROTEIN NELL2 PRECURSOR (NELL-LIKE PROTEIN 2) |
| 12363 | 25255 | | 1.61 | 3.0E-05 | L77370.1 | NT | Homo sapiens D1George syndrome critical region, centromeric end |
| 12551 | 25374 | | 1.37 | 3.0E-05 | AJ271735.1 | NT | Homo sapiens Xq pseudobulbar region, segment 1/2 |
| 12813 | 28196 | | 1.29 | 3.0E-05 | AW518889.1 | EST_HUMAN | xs58406.x1 NCJ_CGAP_U12 Homo sapiens cDNA clone IMAGE:2778811 3' |
| 2400 | 15531 | 28658 | 1.49 | 2.0E-05 | AI286021.1 | EST_HUMAN | qh88e1.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1856052 3' similar to contains MER3 b2 MER3 repetitive element; |
| 2650 | 15773 | 28886 | 14.63 | 2.0E-05 | MI3752.1 | NT | Human adenosine deaminase (ADA) gene, complete cds |
| 2777 | 16893 | | 6.99 | 2.0E-05 | AA160592.1 | EST_HUMAN | zq48a12.r1 Stratagene hNT neuron (#637233) Homo sapiens cDNA clone IMAGE:632734 5' similar to contains Alu repetitive element; contains element L1 repetitive element; |
| 3207 | 16382 | 28393 | 1.29 | 2.0E-05 | BE066036.1 | EST_HUMAN | RC3-BT0319-120200-014-h08 BT0319 Homo sapiens cDNA |
| 3428 | 16597 | 28613 | 1.04 | 2.0E-05 | AF184614.1 | NT | Homo sapiens p47-phox (NCF1) gene, complete cds |
| 3435 | 16622 | 28843 | 1.12 | 2.0E-05 | X89211.1 | NT | H.sapiens DNA for endogenous retroviral like element |
| 3583 | 16748 | | 0.87 | 2.0E-05 | X95465.1 | NT | S.cerevisiae 12.8 Kbp fragment of the left arm of chromosome XV |
| 3909 | 17068 | | 0.81 | 2.0E-05 | ALD39107.1 | EST_HUMAN | DKFZp5681084_r1 558 (synonym: hhd2) Homo sapiens cDNA clone DKFZp5681084 5' |
| 5003 | 18132 | 31106 | 0.6 | 2.0E-05 | AJ131016.1 | NT | Homo sapiens SOL gene locus |
| 5878 | 18068 | 32376 | 1.84 | 2.0E-05 | AJ011712.1 | NT | Homo sapiens TNNT1 gene, exons 1-11 (and joined CDS) |
| 6039 | 19222 | | 0.87 | 2.0E-05 | AF028308.1 | NT | Homo sapiens chromosome 9 duplication of the T cell receptor beta locus and tyrosinogen gene families |

Page 203 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6092 | 19273 | 32601 | 0.91 | 2.0E-05 | Q13183 | SWISSPROT | RENAL SODIUM/DICARBOXYLATE COTRANSPORTER (NA(+)/DICARBOXYLATE COTRANSPORTER) |
| 6092 | 19273 | 32602 | 0.91 | 2.0E-05 | Q13183 | SWISSPROT | RENAL SODIUM/DICARBOXYLATE COTRANSPORTER (NA(+)/DICARBOXYLATE COTRANSPORTER) |
| 6286 | 19459 | 32811 | 0.79 | 2.0E-05 | A1149272.1 | EST_HUMAN | qp72a02.x1 Soares_placenta_8weeks_2NbpHP8tc9W Homo sapiens cDNA clone IMAGE:1715114 3' similar to contains L1.13 L1 repetitive element; |
| 6760 | 19916 | 33311 | 2.11 | 2.0E-05 | AA714330.1 | EST_HUMAN | hw05d12.s1 NCI CGAP_S51 Homo sapiens cDNA clone IMAGE:1238519 3' |
| 7042 | 20095 | 33511 | 1.59 | 2.0E-05 | Y08928.1 | NT | P.falciparum mRNA for AARP1 protein, partial |
| 7054 | 20107 | 33523 | 1 | 2.0E-05 | A1492860.1 | EST_HUMAN | qz47608.x1 NCI CGAP_K1d11 Homo sapiens cDNA clone IMAGE:20300003 3' similar to TR:002711 |
| 7062 | 20115 | | 7.24 | 2.0E-05 | A1991025.1 | EST_HUMAN | O02711 PRO-POL-DUTPASE POLYPROTEIN; |
| 7303 | 20385 | 33844 | 2 | 2.0E-05 | AF224282.1 | NT | wt35h07.x1 Soares_Dickgraefe_colon_NHCD Homo sapiens cDNA clone IMAGE:2522077 3' |
| 7303 | 20385 | 33845 | 2 | 2.0E-05 | AF224282.1 | NT | Heterodontus francisci HoxA10 (HoxA10), HoxA9 (HoxA9), HoxA7 (HoxA7), HoxA6 (HoxA6), HoxA5 (HoxA5), HoxA4 (HoxA4), HoxA3 (HoxA3), HoxA2 (HoxA2), and HoxA1 (HoxA1) genes, complete cds |
| 7624 | 20597 | 34871 | 0.77 | 2.0E-05 | AF128847.1 | NT | Homo sapiens hdoethylamide N-methyltransferase (INMT) mRNA, INMT-2 allele, complete cds |
| 8069 | 21151 | 34871 | 1.98 | 2.0E-05 | A1391040.1 | EST_HUMAN | tg20h05.x1 NCI CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2108369 3' |
| 9467 | 22524 | 36087 | 0.58 | 2.0E-05 | P49457 | SWISSPROT | COMPLEMENT DECAY-ACCELERATING FACTOR (CD55) |
| 9497 | 22524 | 36088 | 0.56 | 2.0E-05 | P49457 | SWISSPROT | COMPLEMENT DECAY-ACCELERATING FACTOR (CD55) |
| 10127 | 23163 | 36794 | 0.8 | 2.0E-05 | AL162207.2 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 10339 | 23374 | 36984 | 0.94 | 2.0E-05 | BF055839.1 | EST_HUMAN | 7176g09.y1 NCI CGAP_Brm20 Homo sapiens cDNA clone IMAGE:3340576 5' |
| 10817 | 23850 | 37472 | 3.53 | 2.0E-05 | N41751.1 | EST_HUMAN | yw91a06.r1 Soares_placenta_8weeks_2NbpHP8tc9W Homo sapiens cDNA clone IMAGE:259570 5' |
| 10817 | 23850 | 37473 | 3.53 | 2.0E-05 | N41751.1 | EST_HUMAN | yw91a06.r1 Soares_placenta_8weeks_2NbpHP8tc9W Homo sapiens cDNA clone IMAGE:259570 5' |
| 10881 | 20115 | | 2.66 | 2.0E-05 | A1991025.1 | EST_HUMAN | w135h07.x1 Soares_Dickgraefe_colon_NHCD Homo sapiens cDNA clone IMAGE:2522077 3' |
| 11738 | 23924 | 37549 | 1.55 | 2.0E-05 | BE175801.1 | EST_HUMAN | RC5-HT0582-280300-012-E12 HT0582 Homo sapiens cDNA |
| 11981 | 24966 | 38668 | 5.74 | 2.0E-05 | A1912713.1 | EST_HUMAN | hw12h05.x1 NCI CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2340921 3' |
| 12477 | 25921 | | 3.7 | 2.0E-05 | BE348228.1 | EST_HUMAN | hw21a03.x1 NCI CGAP_K1d11 Homo sapiens cDNA clone IMAGE:3185632 3' similar to TR:Q12832 |
| 12592 | 28104 | | 8.13 | 2.0E-05 | AW074604.1 | EST_HUMAN | Q12832 GLYCOPHORIN HEP2; |
| | | | | | | | xe89a03.x1 NCI CGAP_Co17 Homo sapiens cDNA clone IMAGE:2573932 3' similar to contains L1.13 L1 repetitive element; |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 12860 | 25605 | | 3.24 | 2.0E-05 | AF275948.1 | NT | Homo sapiens ABCA1 (ABCA1) gene, complete cds |
| 12825 | 25551 | 32014 | 2.01 | 2.0E-05 | AU131613.1 | EST_HUMAN | AU131613 NT2RP3 Homo sapiens cDNA clone NT2RP3002707 5' |
| 13208 | 25787 | | 1.64 | 2.0E-05 | AI200870.1 | EST_HUMAN | qf89g11.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1765238 3' |
| 2786 | 16071 | 28983 | 1.86 | 1.0E-05 | AL163282.2 | NT | Homo sapiens chromosome 21 segment HS21C082 |
| 3740 | 16901 | 28906 | 1.71 | 1.0E-05 | AF088273.1 | NT | Drosophila melanogaster strain Lembo 120 Suppressor of Hairless (Su(H)) gene, partial cds |
| 3915 | 17074 | | 0.97 | 1.0E-05 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-48, and partial cds, alternatively spliced |
| 4074 | 17230 | 30236 | 11.86 | 1.0E-05 | P81274 | SWISSPROT | MOSAIC PROTEIN LGN |
| 4288 | 17433 | 30420 | 1.45 | 1.0E-05 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 4392 | 17635 | 30514 | 2.14 | 1.0E-05 | AA431119.1 | EST_HUMAN | zw93g04.1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:781484 5' |
| 4976 | 18104 | 31080 | 2.24 | 1.0E-05 | AW419134.1 | EST_HUMAN | xy48g11.x1 NCL_CGAP_Lu34.1 Homo sapiens cDNA clone IMAGE:2856548 3' |
| 5079 | 18207 | 31179 | 0.86 | 1.0E-05 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 5084 | 18212 | 31185 | 0.64 | 1.0E-05 | Z18943.1 | NT | H. sapiens repeat region |
| 6891 | 20043 | 33451 | 1.13 | 1.0E-05 | AJ246003.1 | NT | Homo sapiens Spast gene for spastin protein |
| 7230 | 20135 | 33553 | 4.24 | 1.0E-05 | AAG41848.1 | EST_HUMAN | ms19g02.s1 NCL_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1184114 3' similar to contains L1.11 L1 |
| 7232 | 20316 | 33769 | 5.19 | 1.0E-05 | 4805844 | NT | L1 repetitive element; |
| 7837 | 20892 | 34394 | 0.73 | 1.0E-05 | BF222646.1 | EST_HUMAN | Homo sapiens phospholipase A2, group X (PLA2G10) mRNA, and translated product |
| 7956 | 21008 | | 2.03 | 1.0E-05 | P18474 | SWISSPROT | 7p57d01.x1 NCL_CGAP_P128 Homo sapiens cDNA clone IMAGE:3649945 3' similar to contains MER10.53 |
| 9116 | 22165 | | 2.39 | 1.0E-05 | AL163227.2 | NT | MER10 repetitive element; |
| 9260 | 22337 | 35887 | 2.59 | 1.0E-05 | AA452376.1 | EST_HUMAN | 52 KD RO PROTEIN (SJOJOREN SYNDROME TYPE A ANTIGEN (SS-A)) (RO(SS-A)) |
| 9487 | 22544 | 36107 | 12.29 | 1.0E-05 | AA238110.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C027 |
| 9586 | 22708 | 36275 | 0.81 | 1.0E-05 | AV732190.1 | EST_HUMAN | zx36h12.s1 Soares_testis_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:788519 3' similar to |
| 10043 | 23081 | 36882 | 0.79 | 1.0E-05 | AW510802.1 | EST_HUMAN | gb.L02832 PEROXISOME PROLIFERATOR ACTIVATED RECEPTOR ALPHA (HUMAN); |
| 10043 | 23081 | 36883 | 0.79 | 1.0E-05 | AW510802.1 | EST_HUMAN | z605e11.1 NCL_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:684332 5' similar to contains Ali |
| 10120 | 23158 | 36758 | 1.18 | 1.0E-05 | AW281521.1 | EST_HUMAN | repetitive element; contains element TART repetitive element; |
| 10120 | 23158 | 36757 | 1.18 | 1.0E-05 | AW281521.1 | EST_HUMAN | AV732190 HTF Homo sapiens cDNA clone HTFBIH01 5' |
| 10387 | 23422 | | 2.04 | 1.0E-05 | AW466995.1 | EST_HUMAN | hd41b02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2812043 3' similar to contains |
| | | | | | | | OFR.t1 OFR repetitive element; |
| | | | | | | | hd41b02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2812043 3' similar to contains |
| | | | | | | | OFR.t1 OFR repetitive element; |
| | | | | | | | UI-H-B12-agg-a-08-0-UJ.s1 NCL_CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2724398 3' |
| | | | | | | | UI-H-B12-agg-a-08-0-UJ.s1 NCL_CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2724398 3' |
| | | | | | | | hd07o10.x1 NCL_CGAP_K1612 Homo sapiens cDNA clone IMAGE:2873010 3' similar to contains L1.12 L1 |
| | | | | | | | repetitive element; |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 11159 | 24230 | 37860 | 2.22 | 1.0E-05 | U91328.1 | NT | Human hereditary haemochromatosis region, histone 2A-like protein gene, hereditary haemochromatosis (H1A-H) gene, RoRet gene, and sodium phosphate transporter (NPT3) gene, complete cds |
| 11159 | 24230 | 37861 | 2.22 | 1.0E-05 | U91328.1 | NT | Human hereditary haemochromatosis region, histone 2A-like protein gene, hereditary haemochromatosis (H1A-H) gene, RoRet gene, and sodium phosphate transporter (NPT3) gene, complete cds |
| 13023 | 26036 | 31683 | 1.4 | 1.0E-05 | AL163303.2 | NT | Human sapiens chromosome 21 segment HS21C103 |
| 2737 | 15854 | 28868 | 5.83 | 9.0E-06 | AF58381.1 | EST_HUMAN | tt73a08.x1 NCJ_CQAP_HSC3 Homo sapiens cDNA clone IMAGE:2246386 3' |
| 3105 | 16940 | 29348 | 6.11 | 9.0E-06 | AI218983.1 | EST_HUMAN | qg11b08.x1 Soares_placenta_8k6weeks_2NbHP80c9W Homo sapiens cDNA clone IMAGE:1759191 3' |
| 3698 | 16959 | | 2.58 | 9.0E-06 | MG1765.1 | NT | Human alanine:glyoxylate aminotransferase (AGXT) gene, exons 1 and 2 |
| 6025 | 19208 | 32528 | 2.48 | 9.0E-06 | L23410.1 | NT | Homo sapiens differentiation antigen CD20 gene, exons 5, 6 |
| 7003 | 20139 | 33557 | 0.82 | 9.0E-06 | BE065042.1 | EST_HUMAN | RC1-BT0313-110500-017-a07 BT0313 Homo sapiens cDNA |
| 7698 | 20668 | 34144 | 2.82 | 9.0E-06 | P08547 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 7953 | 21003 | 34516 | 12.35 | 9.0E-06 | AI034370.1 | EST_HUMAN | ox20g01.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1658912 3' similar to contains Alu repetitive element |
| 8659 | 21739 | 36280 | 1.17 | 9.0E-06 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 9183 | 22261 | 35803 | 3.3 | 9.0E-06 | Q83789 | SWISSPROT | SUSHI REPEAT-CONTAINING PROTEIN SRPX PRECURSOR (DRS PROTEIN) (DOWN-REGULATED BY V-SRC) |
| 9183 | 22201 | 35804 | 3.3 | 9.0E-06 | Q83789 | SWISSPROT | SUSHI REPEAT-CONTAINING PROTEIN SRPX PRECURSOR (DRS PROTEIN) (DOWN-REGULATED BY V-SRC) |
| 9423 | 22487 | 36093 | 4.43 | 9.0E-06 | U95114.1 | NT | Human apolipoprotein E (APOE) gene, hepatic control region HCR-2 |
| 11180 | 24249 | 37883 | 3.61 | 9.0E-06 | Q10394 | SWISSPROT | POTATIVE SERINE/THREONINE-PROTEIN KINASE C22E12.14C |
| 2596 | 16065 | 28839 | 2.01 | 8.0E-06 | AW362539.1 | EST_HUMAN | RC3-CT0283-201199-011-h11 CT0283 Homo sapiens cDNA |
| 6728 | 19884 | 33276 | 2.75 | 8.0E-06 | AA284847.1 | EST_HUMAN | z422d05.a1 Soares ovary tumor NBHOT Homo sapiens cDNA clone IMAGE:713885 3' similar to contains MER11 MER9 repetitive element |
| 10761 | 23764 | 37397 | 0.93 | 8.0E-06 | P34083 | SWISSPROT | FASCICLIN II, PHOSPHATIDYLINOSITOL-LINKED ISOFORM PRECURSOR (FAS II) |
| 10751 | 23764 | 37398 | 0.93 | 8.0E-06 | P34083 | SWISSPROT | FASCICLIN II, PHOSPHATIDYLINOSITOL-LINKED ISOFORM PRECURSOR (FAS II) |
| 1002 | 14173 | | 1.73 | 7.0E-06 | AA669729.1 | EST_HUMAN | el69710.g1 Stratagene lung (#6937210) Homo sapiens cDNA clone IMAGE:854251 3' similar to contains MER20 H1 MER20 repetitive element |
| 1470 | 14624 | 27708 | 3.12 | 7.0E-06 | 7662177 | NT | Homo sapiens KIA0555 gene product (KIA0555), mRNA |
| 2936 | 16113 | | 10.58 | 7.0E-06 | AI388252.1 | EST_HUMAN | qw16g09.x1 NCJ_CQAP_U13 Homo sapiens cDNA clone IMAGE:1891286 3' similar to contains Alu repetitive element |
| 3854 | 16817 | | 0.85 | 7.0E-06 | AA385542.1 | EST_HUMAN | EST08205 Thyroid Homo sapiens cDNA 5' end similar to EST containing L1 repeat |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 5813 | 18003 | | 6.49 | 7.0E-08 | AW883141.1 | EST_HUMAN | QV2-OT0062-250400-173-h01 OT0062 Homo sapiens cDNA |
| 5925 | 18112 | 32424 | 0.83 | 7.0E-08 | N98645.1 | EST_HUMAN | Y95C07.r1 Soares_multiple_sclerosis_2NBHMSF Homo sapiens cDNA clone IMAGE:278412 5' |
| 8989 | 22068 | 35608 | 0.83 | 7.0E-08 | 11420708 | NT | Homo sapiens DNA segment, numerous copies, expressed probes (G31 gene) (DXF88S1E), mRNA |
| 10104 | 23142 | | 0.52 | 7.0E-06 | Q81147 | SWISSPROT | GERULOPLASMIN PRECURSOR (FERROXIDASE) |
| 12202 | 26131 | 31547 | 1.68 | 7.0E-06 | BF215972.1 | EST_HUMAN | 801881522F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:4093972 5' |
| 2884 | 18160 | 29177 | 1.17 | 6.0E-06 | BE069189.1 | EST_HUMAN | QV3-BT0379-010300-105-411 BT0379 Homo sapiens cDNA |
| 3784 | 18845 | 29952 | 1.02 | 6.0E-06 | BE069189.1 | EST_HUMAN | QV3-BT0379-010300-105-411 BT0379 Homo sapiens cDNA |
| 4870 | 18183 | 29206 | 2.13 | 6.0E-06 | Q01456 | SWISSPROT | OVARIAN ABUNDANT MESSAGE PROTEIN (OAM PROTEIN) |
| 4883 | 18013 | 30997 | 2.19 | 6.0E-06 | A1040098.1 | EST_HUMAN | cc08d02.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1655738 3' similar to contains MERB.12 MER8 repetitive element: |
| 5465 | 18665 | 31644 | 2.29 | 6.0E-06 | AF167441.1 | NT | Mus musculus E-cadherin binding protein E7 mRNA, complete cds |
| 5529 | 18722 | 31738 | 1.16 | 6.0E-06 | Q02040 | SWISSPROT | PROTEIN XE7 |
| 10060 | 23098 | | 1.98 | 6.0E-06 | AW801912.1 | EST_HUMAN | IL5-UM0070-110400-063-g02 UM0070 Homo sapiens cDNA |
| 13142 | 26742 | 31948 | 2.39 | 6.0E-06 | 11418157 | NT | Homo sapiens calcium channel, voltage-dependent, alpha 1I subunit (CACNA1I), mRNA |
| 6186 | 18382 | 32710 | 3.74 | 6.0E-06 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 8487 | 19634 | 32895 | 1.94 | 5.0E-06 | U07581.1 | NT | Human ABL gene, exon 1b and intron 1b, and putative M8604 Met protein (M8604 Met) gene, complete cds |
| 7382 | 20460 | 33923 | 1.18 | 5.0E-06 | AB007546.1 | NT | Homo sapiens gene for LECT2, complete cds |
| 8654 | 21734 | 35274 | 0.58 | 5.0E-06 | AW858972.1 | EST_HUMAN | RC1-CT0302-120200-013-H02 CT0302 Homo sapiens cDNA |
| 8654 | 21734 | 35275 | 0.58 | 5.0E-06 | AW858972.1 | EST_HUMAN | RC1-CT0302-120200-013-H02 CT0302 Homo sapiens cDNA |
| 10307 | 23342 | 36947 | 6.68 | 5.0E-06 | AA313620.1 | EST_HUMAN | EST185486 Colon carcinoma (HCC) cell line Homo sapiens cDNA 5' end |
| 10731 | 23764 | 37372 | 0.51 | 5.0E-06 | P06681 | SWISSPROT | COMPLEMENT C2 PRECURSOR (C3/C5 CONVERTASE) |
| 13011 | 25668 | 31857 | 5.49 | 5.0E-06 | A1065045.1 | EST_HUMAN | HA0877 Human fetal liver cDNA library Homo sapiens cDNA |
| 684 | 13650 | 28877 | 5.47 | 4.0E-06 | R16267.1 | EST_HUMAN | ye48c03.r1 Soares Infant brain 1N1B Homo sapiens cDNA clone IMAGE:53254 5' similar to contains Alu repetitive element; contains L1 repetitive element: |
| 869 | 14046 | 27110 | 4.73 | 4.0E-06 | AW103354.1 | EST_HUMAN | xc69g12.x1 NCI_CGAP_Eso2 Homo sapiens cDNA clone IMAGE:2589574 3' similar to contains Alu repetitive element; contains element MER21 repetitive element: |
| 1365 | 14519 | 27693 | 3.18 | 4.0E-06 | A1334928.1 | EST_HUMAN | tb33e09.x1 NCI_CGAP_HSC2 Homo sapiens cDNA clone IMAGE:2058168 3' |
| 1365 | 14519 | 27594 | 3.18 | 4.0E-06 | A1334928.1 | EST_HUMAN | tb33e09.x1 NCI_CGAP_HSC2 Homo sapiens cDNA clone IMAGE:2058168 3' |
| 1503 | 14656 | 27738 | 1.45 | 4.0E-06 | BF365612.1 | EST_HUMAN | QV2-NT0046-200900-250-H07 NT0046 Homo sapiens cDNA |
| 2339 | 15470 | 28605 | 1.56 | 4.0E-06 | AW015401.1 | EST_HUMAN | UHH-BIO-aat-05-0.U1.s1 NCI_CGAP_Sub1 Homo sapiens cDNA clone IMAGE:2710425 3' |
| 3131 | 16307 | 28321 | 0.89 | 4.0E-06 | AF198349.1 | NT | Galus gallus Dacth2 protein (Dacth2) mRNA, complete cds |
| 4000 | 17157 | 30163 | 0.89 | 4.0E-06 | AW948295.1 | EST_HUMAN | IL3-CT0214-150200-074-B03 CT0214 Homo sapiens cDNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 4929 | 18059 | 31041 | 1.89 | 4.0E-06 | AI889338.1 | EST_HUMAN | w04c10.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2432562 3' similar to contains element MER22 repetitive element; |
| 8696 | 21776 | 35308 | 0.88 | 4.0E-06 | O15393 | SWISSPROT | TRANSMEMBRANE PROTEIN, SERINE 2 |
| 8900 | 22079 | 35620 | 4.48 | 4.0E-06 | AF006660.1 | NT | Homo sapiens T cell receptor beta locus, TCRBV793A2 to TORBV1292 region |
| 8909 | 22849 | 36535 | 1.28 | 4.0E-06 | AJ272285.1 | NT | Homo sapiens SPP2 gene for secreted phosphoprotein 24 precursor, exons 1-8 |
| 11736 | 23621 | 37546 | 3.99 | 4.0E-06 | AB007955.1 | NT | Homo sapiens mRNA, chromosome 1 specific transcript KIAA0486 |
| 13149 | 26152 | | 1.33 | 4.0E-06 | AW288734.1 | EST_HUMAN | xs53e01.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2773368 3' |
| 2232 | 15366 | 28494 | 1.31 | 3.0E-06 | AA700562.1 | EST_HUMAN | z34b08.st Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:432663 3' similar to contains L1.1 L1 repetitive element; |
| 2232 | 15366 | 28495 | 1.31 | 3.0E-06 | AA700562.1 | EST_HUMAN | z34b08.st Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:432663 3' similar to contains L1.1 L1 repetitive element; |
| 2340 | 16471 | | 1.48 | 3.0E-06 | AF202835.1 | NT | Homo sapiens PPT200 mRNA, complete cds |
| 2888 | 16164 | 29180 | 0.84 | 3.0E-06 | AA888218.1 | EST_HUMAN | akt49g11.s1 Soares_testis_NIT Homo sapiens cDNA clone IMAGE:1409252 3' similar to contains LTR1.13 LTR1 repetitive element; |
| 3339 | 16512 | | 2.67 | 3.0E-06 | A1857779.1 | EST_HUMAN | w122a05.x1 NCI_CGAP_U1 Homo sapiens cDNA clone IMAGE:2425616 3' similar to TR:O60734 O60734 LINE-1 LIKE PROTEIN; contains L1.12 L1 repetitive element; |
| 3883 | 17042 | 30040 | 1.47 | 3.0E-06 | BE047094.1 | EST_HUMAN | hg64d12.x1 NCI_CGAP_HN13 Homo sapiens cDNA clone IMAGE:3124151 3' |
| 3883 | 17042 | 30041 | 1.47 | 3.0E-06 | BE047094.1 | EST_HUMAN | hg64d12.x1 NCI_CGAP_HN13 Homo sapiens cDNA clone IMAGE:3124151 3' |
| 4597 | 17734 | 30714 | 0.8 | 3.0E-06 | T50266.1 | EST_HUMAN | y578b10.r1 Stratiogene ovary (#637217) Homo sapiens cDNA clone IMAGE:77275 5' similar to contains L1 repetitive element |
| 4684 | 17819 | 30807 | 5.52 | 3.0E-06 | X54816.1 | NT | Homo sapiens gene for alpha-1-microglobulin-bikunin, exons 1-5 (encoding alpha-1-microglobulin, N-terminus) |
| 6289 | 19462 | 32814 | 0.82 | 3.0E-06 | AU159412.1 | EST_HUMAN | AU159412 THYR01 Homo sapiens cDNA clone THYR01001602 3' |
| 7377 | 20458 | | 2.14 | 3.0E-06 | P08548 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 8274 | 21356 | 34874 | 0.81 | 3.0E-06 | BE562854.1 | EST_HUMAN | 601336213F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3690314 5' |
| 8883 | 21962 | 35498 | 0.76 | 3.0E-06 | P07743 | SWISSPROT | PAROTID SECRETORY PROTEIN PRECURSOR (PSP) |
| 12658 | 25435 | | 12.07 | 3.0E-06 | AW385262.1 | EST_HUMAN | RC0-LT0001-261199-011-A03 LT0001 Homo sapiens cDNA |
| 207 | 13430 | | 2.22 | 2.0E-06 | P54368 | SWISSPROT | HOMEOBOX PROTEIN G00SECOID |
| 1599 | 14752 | | 6.39 | 2.0E-06 | P21414 | SWISSPROT | POLYPROTEIN [CONTAINS: PROTEASE; REVERSE TRANSCRIPTASE; ENDONUCLEASE] |
| 2451 | 15579 | 28707 | 2.58 | 2.0E-06 | A1672138.1 | EST_HUMAN | wa04e03.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2267068 3' similar to contains MER30.b1 MER30 repetitive element; |
| 2537 | 15962 | 28785 | 1.69 | 2.0E-06 | P04929 | SWISSPROT | HISTIDINE-RICH GLYCOPROTEIN PRECURSOR |
| 2632 | 15755 | 28870 | 1.81 | 2.0E-06 | P06719 | SWISSPROT | KNOB-ASSOCIATED HISTIDINE-RICH PROTEIN PRECURSOR (KAHRP) |
| 3607 | 16771 | 29786 | 0.8 | 2.0E-06 | AV657555.1 | EST_HUMAN | AV657555 GLC Homo sapiens cDNA clone GLCFDB05 3' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 3858 | 17018 | 30017 | 1.54 | 2.0E-06 | AA173518.1 | EST_HUMAN | z02005.r1 Stratagene ovarian cancer (#637219) Homo sapiens cDNA clone IMAGE:595232 5' |
| 3868 | 17027 | 30026 | 0.68 | 2.0E-06 | AW450215.1 | EST_HUMAN | U1H-B13-aky-g-05-U1.s1 NCI_CGAP_Sub55 Homo sapiens cDNA clone IMAGE:2738176 3' |
| 3876 | 17035 | 30033 | 1.7 | 2.0E-06 | AB030898.1 | NT | Mus musculus gene for odorant receptor A10, complete cds |
| 6214 | 19389 | | 0.92 | 2.0E-06 | AA974932.1 | EST_HUMAN | on34h01.s1 NCI_CGAP_Lus5 Homo sapiens cDNA clone IMAGE:1538609 3' similar to contains Alu repetitive element; |
| 6246 | 19420 | 32766 | 0.62 | 2.0E-06 | AI539448.1 | EST_HUMAN | tes1f05.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2060241 3' similar to TR:Q13537 |
| 6571 | 19733 | 33112 | 5.84 | 2.0E-06 | AB19424.1 | EST_HUMAN | Q13537 MER37 TRANSPORTABLE ELEMENT, COMPLETE CONSENSUS SEQUENCE. ; |
| 7635 | 20704 | 34183 | 0.63 | 2.0E-06 | AA688423.1 | EST_HUMAN | w90b04.x1 NCI_CGAP_Lym12 Homo sapiens cDNA clone IMAGE:2410083 3' |
| 8102 | 21184 | | 1.02 | 2.0E-06 | AW869223.1 | EST_HUMAN | nv59c06.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1234090 3' similar to contains L1.13 L1 repetitive element; |
| 8281 | 21363 | 34882 | 0.78 | 2.0E-06 | T12238.1 | EST_HUMAN | MR3-SN0087-120400-002-02 SN0087 Homo sapiens cDNA |
| 9036 | 22115 | | 1.05 | 2.0E-06 | AA772497.1 | EST_HUMAN | A447R Heart Homo sapiens cDNA clone A447 |
| 9049 | 22128 | 35872 | 1.59 | 2.0E-06 | H62051.1 | EST_HUMAN | zh27c11.s1 Soares_pituitary_gland_NSHFG Homo sapiens cDNA clone IMAGE:413300 3' similar to |
| 9417 | 22481 | 36056 | 0.9 | 2.0E-06 | AF003529.1 | NT | TR:P70467 P70467 REVERSE TRANSCRIPTASE ; |
| 9417 | 22481 | 36057 | 0.9 | 2.0E-06 | AF003529.1 | NT | WJ37c04.r1 Soares_ovary_tumor_NH0T Homo sapiens cDNA clone IMAGE:235974 5' similar to gbX74929 |
| 9438 | 22510 | | 0.46 | 2.0E-06 | AA73450.1 | EST_HUMAN | KERATIN, TYPE II CYTOSKELETAL 8 (HUMAN); |
| 9902 | 22942 | 36527 | 0.86 | 2.0E-06 | N30576.1 | EST_HUMAN | Homo sapiens glycocalyx 3 (GPC3) gene, partial cds and flanking repeat regions |
| 10123 | 23161 | | 0.7 | 2.0E-06 | AV748989.1 | EST_HUMAN | Homo sapiens glycocalyx 3 (GPC3) gene, partial cds and flanking repeat regions |
| 12648 | 28135 | 31549 | 1.34 | 2.0E-06 | P23249 | SWISSPROT | W119g10.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2141730 3' |
| 12711 | 25473 | | 5.94 | 2.0E-06 | BE328232.1 | EST_HUMAN | W669d03.s1 Soares_placenta_8to6weeks_2Nblp18c9W Homo sapiens cDNA clone IMAGE:267212 3' |
| 34 | 13272 | 28276 | 1.16 | 1.0E-06 | O76082 | SWISSPROT | AV748989 NPC Homo sapiens cDNA clone NPCAXD05 5' |
| 874 | 13860 | 26891 | 1.8 | 1.0E-06 | AF094394.1 | NT | PROTEIN MOV-10 |
| 1482 | 14635 | 27719 | 1.8 | 1.0E-06 | P09125 | SWISSPROT | hs92f02.x1 NCI_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3144699 3' similar to contains L1.12 L1 repetitive element; |
| 1553 | 14706 | 27786 | 1 | 1.0E-06 | AL163278.2 | NT | ORGANIC CATION/CARNITINE TRANSPORTER 2 (SOLUTE CARRIER FAMILY 22, MEMBER 6) (HIGH-AFFINITY SODIUM-DEPENDENT CARNITINE COTRANSPORTER) |
| 1603 | 14756 | 27837 | 1.19 | 1.0E-06 | AA034141.1 | EST_HUMAN | Mus musculus DDM15E protein (Ddm15e) mRNA, complete cds |
| 1603 | 14756 | 27838 | 1.19 | 1.0E-06 | AA034141.1 | EST_HUMAN | MEROZOITE SURFACE PROTEIN CMZ-8 |
| | | | | | | | Homo sapiens chromosome 21 segment HS21C078 |
| | | | | | | | z106a12.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:429982 3' similar to contains Alu repetitive element; |
| | | | | | | | z106a12.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:429982 3' similar to contains Alu repetitive element; |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 1815 | 14768 | | 0.99 | 1.0E-06 | P27625 | SWISSPROT | DNA-DIRECTED RNA POLYMERASE III LARGEST SUBUNIT |
| 2050 | 15191 | 28303 | 4.49 | 1.0E-06 | AF184614.1 | NT | Homo sapiens p47-phox (NCF1) gene, complete cds |
| 2050 | 15191 | 28304 | 4.49 | 1.0E-06 | AF184614.1 | NT | Homo sapiens p47-phox (NCF1) gene, complete cds |
| 4489 | 17629 | 30610 | 15.97 | 1.0E-06 | U07661.1 | NT | Human ABL gene, exon 1b and Intron 1b, and putative M8504 Met protein (M8504 Met) gene, complete cds |
| 5215 | 18336 | 31308 | 1.18 | 1.0E-06 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 5215 | 18336 | 31309 | 1.18 | 1.0E-06 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C086 |
| 5342 | 18455 | 31422 | 0.72 | 1.0E-06 | N65948.1 | EST_HUMAN | za27608.s1 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:283750 3' |
| 5405 | 18507 | 31579 | 5.14 | 1.0E-06 | BF333015.1 | EST_HUMAN | MR1-BT0800-030700-002-c06 BT0800 Homo sapiens cDNA |
| 6430 | 18630 | 31607 | 0.94 | 1.0E-06 | BE834518.1 | EST_HUMAN | MR3-FN0004-090600-001-e04 FN0004 Homo sapiens cDNA |
| 6430 | 18630 | 31608 | 0.94 | 1.0E-06 | BE834518.1 | EST_HUMAN | MR3-FN0004-090600-001-e04 FN0004 Homo sapiens cDNA |
| 5592 | 18787 | 31834 | 1.04 | 1.0E-06 | C00813 | SWISSPROT | 15 KDA SELENOPROTEIN PRECURSOR |
| 6915 | 19103 | | 0.72 | 1.0E-06 | BE063527.1 | EST_HUMAN | CM0-BT0281-031189-087-h04 BT0281 Homo sapiens cDNA |
| 7012 | 20148 | 33569 | 7.53 | 1.0E-06 | P02871 | SWISSPROT | FIBRINOGEN ALPHA1/ALPHA-E CHAIN PRECURSOR |
| 7923 | 26223 | | 0.73 | 1.0E-06 | BE185330.1 | EST_HUMAN | IL6-HT0730-020500-074-g01 HT0730 Homo sapiens cDNA |
| 8180 | 21272 | | 0.99 | 1.0E-06 | AA912823.1 | EST_HUMAN | cl28c08.s1 Soares NFL_I_GBC_S1 Homo sapiens cDNA clone IMAGE:1624878 3' |
| 8468 | 21549 | 35078 | 1.12 | 1.0E-06 | AB347010.1 | EST_HUMAN | qp34602.x1 NCI_CGAP_C68 Homo sapiens cDNA clone IMAGE:1926842 3' |
| 8685 | 21765 | 35297 | | 1.0E-06 | AI287878.1 | EST_HUMAN | q223008.x1 NCI_CGAP_LymB Homo sapiens cDNA clone IMAGE:1982435 3' similar to confalno element |
| 8904 | 22770 | 36341 | 0.91 | 1.0E-06 | N74635.1 | EST_HUMAN | MIR repetitive element |
| 9579 | 22721 | 36291 | 0.61 | 1.0E-06 | Q39575 | SWISSPROT | za55601.s1 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:286472 3' |
| 9884 | 22924 | 36507 | 3.47 | 1.0E-06 | U82608.1 | NT | DYNEIN GAMMA CHAIN, FLAGELLAR OUTER ARM |
| 9884 | 22924 | 36508 | 3.47 | 1.0E-06 | U82608.1 | NT | Homo sapiens shox gene, alternatively spliced products, complete cds |
| 9929 | 22969 | 36558 | 5.22 | 1.0E-06 | AA132611.1 | EST_HUMAN | Homo sapiens shox gene, alternatively spliced products, complete cds |
| 9991 | 23030 | | 3.55 | 1.0E-06 | AA449267.1 | EST_HUMAN | z017c08.r1 Stratagens colon (#937204) Homo sapiens cDNA clone IMAGE:587174 5' |
| 10705 | 23738 | | 2.19 | 1.0E-06 | AL163203.2 | NT | z044411.s1 Soares total fetal NB2-HF8_9w Homo sapiens cDNA clone IMAGE:785493 3' similar to |
| 11949 | 24935 | | 3.1 | 1.0E-06 | AW890941.1 | EST_HUMAN | gbD28128 RIBONUCLEASE PANCREATIC PRECURSOR (HUMAN); |
| 12589 | 25906 | 32041 | 8.24 | 1.0E-06 | L78810.1 | NT | gbd28128 RIBONUCLEASE PANCREATIC PRECURSOR (HUMAN); |
| 371 | 13580 | 26813 | 1.95 | 9.0E-07 | AF003529.1 | NT | Homo sapiens chromosome 21 segment HS21C083 |
| 371 | 13580 | 26814 | 1.95 | 9.0E-07 | AF003529.1 | NT | Homo sapiens ADP/ATP carrier protein (ANT-2) gene, complete cds |
| 8602 | 21883 | | 0.69 | 9.0E-07 | AL163280.2 | NT | Homo sapiens glypican 3 (GPC3) gene, partial cds and flanking repeat regions |
| 11526 | 24681 | 38267 | 1.83 | 9.0E-07 | AL163281.2 | NT | Homo sapiens glypican 3 (GPC3) gene, partial cds and flanking repeat regions |
| 4893 | 18023 | 31008 | 4.23 | 8.0E-07 | AI288598.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C080 |
| | | | | | | | Homo sapiens chromosome 21 segment HS21C081 |
| | | | | | | | q82q07.x1 Soares NTHMPu_S1 Homo sapiens cDNA clone IMAGE:1878878 3' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 4893 | 18023 | 31009 | 4.23 | 8.0E-07 | A1288598.1 | EST_HUMAN | q182g07.x1 Soares, NtHMPu, S1 Homo sapiens cDNA clone IMAGE:1878876 3' |
| 6007 | 19192 | | 8.17 | 8.0E-07 | P21414 | SWISSPROT | POLYPROTEIN [CONTAINS: PROTEASE; REVERSE TRANSCRIPTASE; ENDONUCLEASE] |
| 8191 | 21273 | | 8.44 | 8.0E-07 | AF135416.1 | NT | Homo sapiens UDP-glucuronosyltransferase gene, complete cds |
| 11921 | 24907 | | 5.84 | 8.0E-07 | T07770.1 | EST_HUMAN | EST03680 Fetal brain, Stralagene (cat#939206) Homo sapiens cDNA clone HFBN689 |
| 12183 | 25143 | | 6.1 | 8.0E-07 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 1914 | 15057 | 28167 | 0.97 | 7.0E-07 | AF167341.1 | NT | Homo sapiens membrane interleukin 1 receptor accessory protein (IL1RAP) gene, exons 10 and 11 |
| 5636 | 18830 | 31806 | 0.86 | 7.0E-07 | 6003700 | NT | Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 8 (ABCA8), mRNA |
| 5936 | 18830 | 31907 | 0.86 | 7.0E-07 | 6003700 | NT | Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 8 (ABCA8), mRNA |
| 1962 | 15105 | 28205 | 3.47 | 6.0E-07 | AW85558.1 | EST_HUMAN | CM3-CT0277-221099-024-411 CT0277 Homo sapiens cDNA |
| 2661 | 15686 | 28812 | 2.43 | 6.0E-07 | AF019413.1 | NT | Homo sapiens HLA class III region containing tenascin X (tenascin-X) gene, partial cds; cytochrome P450 21-hydroxylase (CYP21B), complement component C4 (C4B) G11, helicase (SKI2W), RD, complement factor B (Bf), and complement component C2 (C2) genes, > |
| 4080 | 17236 | | 1.74 | 6.0E-07 | P41479 | SWISSPROT | HYPOTHETICAL 24.1 KD PROTEIN IN LEF-4-P33 INTERGENIC REGION |
| 9342 | 22418 | 35972 | 1.31 | 6.0E-07 | BF001867.1 | EST_HUMAN | 769407.x1 NCL_CGAP_Co18 Homo sapiens cDNA clone IMAGE:3314149 3' similar to TR:075920 O75920 4F6L. |
| 12115 | 25095 | 38800 | 1.45 | 6.0E-07 | BE063509.1 | EST_HUMAN | CM0-BT0281-031189-087-403 BT0281 Homo sapiens cDNA |
| 12444 | 26087 | | 1.72 | 6.0E-07 | AW603222.1 | EST_HUMAN | CM4-NN1029-250300-121-412 NN1029 Homo sapiens cDNA |
| 13229 | 25992 | | 1.32 | 6.0E-07 | BE22390.1 | EST_HUMAN | hu11h05.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3166329 3' similar to contains L1.b2 L1 L1 repetitive element; |
| 336 | 13649 | | 1.04 | 5.0E-07 | AI831893.1 | EST_HUMAN | wh84f10.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2385547 3' |
| 1082 | 14243 | | 2.39 | 5.0E-07 | AA380630.1 | EST_HUMAN | EST193815 Supt cells Homo sapiens cDNA 5' and |
| 3096 | 16272 | | 0.73 | 5.0E-07 | AI831893.1 | EST_HUMAN | wh84f10.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2385547 3' |
| 4769 | 17904 | 30886 | 0.97 | 5.0E-07 | AF149774.1 | NT | Homo sapiens NOD1 protein (NOD1) gene, exons 4 through 14 and complete cds |
| 6247 | 19421 | 32787 | 1.33 | 5.0E-07 | U65067.1 | NT | Mus musculus OG-2 homeodomain protein (OG-2) gene, partial cds |
| 7210 | 20075 | 33487 | 1.71 | 5.0E-07 | AI393981.1 | EST_HUMAN | tg06a05.x1 NCL_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2107853 3' similar to contains Alu repetitive element; contains element A3R repetitive element; |
| 7210 | 20075 | 33489 | 1.71 | 5.0E-07 | AI393981.1 | EST_HUMAN | tg06a05.x1 NCL_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2107853 3' similar to contains Alu repetitive element; contains element A3R repetitive element; |
| 7503 | 20578 | 34050 | 16.93 | 5.0E-07 | AW070885.1 | EST_HUMAN | xs31e02.x1 NCL_CGAP_Br18 Homo sapiens cDNA clone IMAGE:2588362 3' similar to gb:U16341 CYTOCHROME C OXIDASE POLYPEPTIDE VIA-LIVER (HUMAN); |
| 8470 | 21651 | 35081 | 1.02 | 5.0E-07 | Q9WUQ1 | SWISSPROT | ADAM-TS 1 PRECURSOR (A DISINTEGRIN AND METALLOPROTEINASE WITH THROMBOSPONDIN MOTIFS 1) (ADAMTS-1) (ADAM-TS1) |
| 8687 | 21787 | | 0.88 | 5.0E-07 | P09593 | SWISSPROT | S-ANTIGEN PROTEIN PRECURSOR |

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 10577 | 23612 | 37217 | 5.47 | 5.0E-07 | AJ908587.1 | EST_HUMAN | CM-BT17b-22049b-014 BT17b Homo sapiens cDNA |
| 11805 | 24795 | 38463 | 5.69 | 5.0E-07 | P11087 | SWISSPROT | COLLAGEN ALPHA 1(I) CHAIN PRECURSOR |
| 11880 | 24663 | | 2.08 | 5.0E-07 | AJ271736.1 | NT | Homo sapiens Xq pseudautosomal region; segment 1/2 |
| 12268 | 25868 | | 1.2 | 5.0E-07 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 12918 | 26966 | | 3.06 | 5.0E-07 | AW882537.1 | EST_HUMAN | QV0-CT0888-210400-204-b12 CT0383 Homo sapiens cDNA |
| 4108 | 17280 | 30261 | 1.66 | 4.0E-07 | AW008602.1 | EST_HUMAN | ws84h05.x1 NCI CGAP_C08 Homo sapiens cDNA clone IMAGE:2504687 3' |
| 7328 | 20410 | | 0.8 | 4.0E-07 | AJ272265.1 | NT | Homo sapiens SPP2 gene for secreted phosphoprotein 24 precursor, exons 1-8 |
| 7417 | 20465 | 33983 | 0.97 | 4.0E-07 | Q9Z2V8 | SWISSPROT | HISTONE DEACETYLASE 5 (HD5) (HISTONE DEACETYLASE MHDA1) |
| 7417 | 20465 | 33964 | 0.97 | 4.0E-07 | Q9Z2V8 | SWISSPROT | HISTONE DEACETYLASE 5 (HD5) (HISTONE DEACETYLASE MHDA1) |
| 8107 | 21169 | 34709 | 0.51 | 4.0E-07 | AL163207.2 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 9251 | 23228 | 35875 | 4.9 | 4.0E-07 | AW419134.1 | EST_HUMAN | xy49g11.x1 NCI CGAP_Lu34.1 Homo sapiens cDNA clone IMAGE:2856548 3' |
| 10332 | 23367 | 36978 | 0.63 | 4.0E-07 | BE901975.1 | EST_HUMAN | 601870748F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3050651 5' |
| 10332 | 23367 | 36977 | 0.53 | 4.0E-07 | BE901976.1 | EST_HUMAN | 601870748F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3050651 5' |
| 10531 | 23566 | 37174 | 0.56 | 4.0E-07 | AL163218.2 | NT | Homo sapiens chromosome 21 segment HS21C018 |
| 11179 | 24248 | 37881 | 3.88 | 4.0E-07 | A1765528.1 | EST_HUMAN | w81508.x1 NCI CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2398703 3' |
| 11179 | 24248 | 37882 | 3.88 | 4.0E-07 | A1765528.1 | EST_HUMAN | w81508.x1 NCI CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2398703 3' |
| 11495 | 24553 | | 1.69 | 4.0E-07 | BE001828.1 | EST_HUMAN | PM1-BN0083-030300-003-e12 BN0083 Homo sapiens cDNA |
| 11919 | 24905 | | 1.32 | 4.0E-07 | BE867557.1 | EST_HUMAN | 601849083F1 NIH_MGC_73 Homo sapiens cDNA clone IMAGE:3032924 5' |
| 13207 | 25788 | | 1.71 | 4.0E-07 | 11437071 | NT | Homo sapiens deleted in lymphocytic leukemia, 1 (DLEU1), mRNA |
| 454 | 13650 | 26888 | 5.38 | 3.0E-07 | U19719.1 | NT | Human microfilament-associated glycoprotein (MFAP2) gene, putative promoter region and alternatively spliced untranslated exons |
| 598 | 13786 | 26906 | 3.59 | 3.0E-07 | AJ271735.1 | NT | Homo sapiens Xq pseudautosomal region; segment 1/2 |
| 1405 | 14559 | 27633 | 1.43 | 3.0E-07 | M99149.1 | NT | Human polymorphic microsatellite DNA |
| 1635 | 14808 | | 3.62 | 3.0E-07 | M84857.1 | NT | Human IgK subgroup I germline gene, exons 1 and 2, V-region 018 allele |
| 2104 | 15243 | | 2.32 | 3.0E-07 | AA528783.1 | EST_HUMAN | nt56509.s1 NCI CGAP_OV2 Homo sapiens cDNA clone IMAGE:980825 similar to contains Alu repetitive element contains L1.13 L1 repetitive element; |
| 2381 | 15492 | 28621 | 1.14 | 3.0E-07 | M99149.1 | NT | Human polymorphic microsatellite DNA |
| 2540 | 15966 | 28789 | 4.99 | 3.0E-07 | BE005077.1 | EST_HUMAN | MFO-BN0115-020300-001-f11 BN0115 Homo sapiens cDNA |
| 2540 | 15965 | 28780 | 4.99 | 3.0E-07 | BE005077.1 | EST_HUMAN | MFO-BN0115-020300-001-f11 BN0115 Homo sapiens cDNA |
| 3099 | 16275 | 29289 | 0.97 | 3.0E-07 | T84704.1 | EST_HUMAN | y65d12.t1 Soares fetal liver spleen 1NLS Homo sapiens cDNA clone IMAGE:111696 5' |
| 3228 | 16402 | 28414 | 1.78 | 3.0E-07 | P38739 | SWISSPROT | HYPOPHYSICAL 63.8 KD PROTEIN IN GUT1-RIM1 INTERGENIC REGION PRECURSOR |
| 4802 | 17937 | 30970 | 0.64 | 3.0E-07 | P20740 | SWISSPROT | OVOSTATIN PRECURSOR (OVOMACROGLOBULIN) |
| 4849 | 17992 | 30970 | 8.04 | 3.0E-07 | AV650201.1 | EST_HUMAN | AV650201 GLC Homo sapiens cDNA clone GLCCD01 3' |
| 4885 | 18015 | 30989 | 0.7 | 3.0E-07 | A1797236.1 | EST_HUMAN | we86b12.x1 Soares_NFL_T_C8C_S1 Homo sapiens cDNA clone IMAGE:2347687 3' |

Page 212 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|--------------|-----------------|----------------|-------------------|--------------------------------------|-----------------------|-------------------------|---|
| 5175 | 18287 | 31259 | 1.43 | 3.0E-07 | T57850.1 | EST_HUMAN | yc14h09.s1 Stragelene lung (#837210) Homo sapiens cDNA clone IMAGE:80705 3' similar to similar to gb:M62982 ARACHIDONATE 12-LIPOXYGENASE (HUMAN) |
| 5175 | 18287 | 31260 | 1.43 | 3.0E-07 | T57850.1 | EST_HUMAN | yc14h09.s1 Stragelene lung (#837210) Homo sapiens cDNA clone IMAGE:80705 3' similar to similar to gb:M62982 ARACHIDONATE 12-LIPOXYGENASE (HUMAN) |
| 5783 | 18975 | 32281 | 12.39 | 3.0E-07 | O88807 | SWISSPROT | PROTEIN-ARGININE DEIMINASE TYPE IV (PEPTIDYLARGININE DEIMINASE IV) (PAD-R4) |
| 6095 | 19276 | 32605 | 0.7 | 3.0E-07 | O42280 | SWISSPROT | (PEPTIDYLARGININE DEIMINASE TYPE ALPHA) |
| 6842 | 19996 | | 5.09 | 3.0E-07 | AA815175.1 | EST_HUMAN | WNT-14 PROTEIN PRECURSOR |
| 7678 | 20743 | 34224 | 3.53 | 3.0E-07 | AW787168.1 | EST_HUMAN | cc04c10.s1 NCI CGAP GC81 Homo sapiens cDNA clone IMAGE:1339890 3' |
| 7841 | 20898 | | 1.3 | 3.0E-07 | AI591065.1 | EST_HUMAN | QV1-UN0038-200300-115-g02 UN0038 Homo sapiens cDNA |
| 8330 | 22406 | 35959 | 0.48 | 3.0E-07 | P33240 | SWISSPROT | Iw28f11.x1 NCI CGAP_Ov35 Homo sapiens cDNA clone IMAGE:2281037 3' similar to contains Alu repetitive element/contains element MSR1 MSR1 repetitive element ; |
| 8330 | 22406 | 35960 | 0.48 | 3.0E-07 | P33240 | SWISSPROT | CLEAVAGE STIMULATION FACTOR, 84 KD SUBUNIT (CSTF 84 KD SUBUNIT) (CF-1 84 KD SUBUNIT) |
| 13194 | 25777 | | 4.26 | 3.0E-07 | AJ132352.1 | NT | CLEAVAGE STIMULATION FACTOR, 84 KD SUBUNIT (CSTF 84 KD SUBUNIT) (CF-1 84 KD SUBUNIT) |
| 29 | 13267 | 26270 | 7.32 | 2.0E-07 | AF282988.1 | NT | Rattus norvegicus mRNA for 45 kDa secretory protein, partial |
| 158 | 13383 | 28413 | 6.06 | 2.0E-07 | L77569.1 | NT | Homo sapiens TRF2-interacting telomeric RAP1 protein (RAP1) mRNA, complete cds |
| 158 | 13383 | 28414 | 6.06 | 2.0E-07 | L77569.1 | NT | Homo sapiens DiGeorge syndrome critical region, telomeric end |
| 186 | 13408 | 28437 | 35.88 | 2.0E-07 | U38849.1 | NT | Homo sapiens DiGeorge syndrome critical region, telomeric end |
| 767 | 13948 | 26995 | 1.48 | 2.0E-07 | AF003630.1 | NT | Fugu rubripes beta-cytoplasmic (vascular) actin gene, complete cds |
| 767 | 13948 | 26996 | 1.48 | 2.0E-07 | AF003630.1 | NT | Homo sapiens homeobox protein CDX4 (CDX4) gene, complete cds and flanking repeat regions |
| 779 | 13959 | | 1.36 | 2.0E-07 | P11369 | SWISSPROT | Homo sapiens homeobox protein CDX4 (CDX4) gene, complete cds and flanking repeat regions |
| 986 | 14139 | 27200 | 2.32 | 2.0E-07 | AA232260.1 | EST_HUMAN | RETROVIRUS-RELATED POL POLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE ; ENDONUCLEASE] |
| 987 | 14140 | 27201 | 2.02 | 2.0E-07 | T63042.1 | EST_HUMAN | z08b07.s1 Stragelene NT2 neuronal precursor 837230 Homo sapiens cDNA clone IMAGE:850869 3' similar to dbL31860 GLYCOPHORIN A PRECURSOR (HUMAN); contains Alu repetitive element |
| 1189 | 14351 | 27408 | 1.55 | 2.0E-07 | Q26768 | SWISSPROT | yc15g04.s1 Stragelene lung (#837210) Homo sapiens cDNA clone IMAGE:80780 3' similar to contains L1 repetitive element ; |
| 1650 | 14782 | 27668 | 2.06 | 2.0E-07 | Q09701 | SWISSPROT | I/8 AUTOANTIGEN |
| 3708 | 16869 | | 0.63 | 2.0E-07 | BF131397.1 | EST_HUMAN | HYPOTHETICAL 72.9 KD PROTEIN C2F7.10 IN CHROMOSOME 1 |
| 3779 | 16940 | 28946 | 21.71 | 2.0E-07 | AF125348.1 | NT | 601818916F1 NIH_MGC 58 Homo sapiens cDNA clone IMAGE:4044891 5' |
| 5238 | 18360 | | 0.6 | 2.0E-07 | AW602219.1 | EST_HUMAN | Homo sapiens caveolin 1 (CAV1) gene, exon 3 and partial cds |
| | | | | | | | QV3-NN1023-260400-188-h11 NN1023 Homo sapiens cDNA |

Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 6460 | 18980 | 31638 | 1.52 | 2.0E-07 | AW898086.1 | EST_HUMAN | RC3-NN0066-260400-021-g11 NN0066 Homo sapiens cDNA |
| 6891 | 26829 | 33226 | 0.73 | 2.0E-07 | AW448968.1 | EST_HUMAN | U1-H-B13-uke-b-01-0-U1.s1 NCI CGAP Sub55 Homo sapiens cDNA clone IMAGE:2734008 3' |
| 6802 | 18957 | 33357 | 3.39 | 2.0E-07 | AI208715.1 | EST_HUMAN | q95d05.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1838177 3' |
| 8664 | 21744 | | 3.87 | 2.0E-07 | AV728990.1 | EST_HUMAN | AV728990 HTC Homo sapiens cDNA clone HTCAEG02 5' |
| 8893 | 21672 | 35508 | 1.11 | 2.0E-07 | AA035198.1 | EST_HUMAN | zk27g09.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:471808 3' |
| 8983 | 23002 | | 1.44 | 2.0E-07 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 10474 | 23509 | 37122 | 6.34 | 2.0E-07 | AW892507.1 | EST_HUMAN | CM4-NN0003-280300-124-e08 NN0003 Homo sapiens cDNA |
| 10706 | 23739 | 37342 | 1.01 | 2.0E-07 | P00751 | SWISSPROT | COMPLEMENT FACTOR B PRECURSOR (C3/C5 CONVERTASE) (PROPERDIN FACTOR B) |
| 10706 | 23739 | 37343 | 1.01 | 2.0E-07 | P00751 | SWISSPROT | (GLYCINE-RICH BETA GLYCOPROTEIN) (GBG) (PBF2) |
| 12138 | 26655 | | 2.98 | 2.0E-07 | BE163717.1 | EST_HUMAN | COMPLEMENT FACTOR B PRECURSOR (C3/C5 CONVERTASE) (PROPERDIN FACTOR B) |
| 12228 | 25957 | | 2.38 | 2.0E-07 | AI732462.1 | EST_HUMAN | PMO-HT0339-260100-006-H07 HT0339 Homo sapiens cDNA |
| 1126 | 14291 | | 0.76 | 1.0E-07 | AL163282.2 | NT | 7785h11.x5 Stragene lung carcinoma 937218 Homo sapiens cDNA clone IMAGE:565028 3' similar to contains THR.b2 THR repetitive element: |
| 2898 | 14704 | 27784 | 2.08 | 1.0E-07 | P09258 | SWISSPROT | Homo sapiens chromosome 21 segment HS21C082 |
| 3838 | 14291 | | 1.24 | 1.0E-07 | AL163282.2 | NT | GLYCOPROTEIN GPV |
| 4408 | 17650 | 30534 | 2.91 | 1.0E-07 | AV718682.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C082 |
| 4408 | 17650 | 30535 | 2.91 | 1.0E-07 | AV718682.1 | EST_HUMAN | AV718682 GLC Homo sapiens cDNA clone GLCNF04 5' |
| 6632 | 19761 | 33180 | 0.8 | 1.0E-07 | U82871.2 | NT | Homo sapiens chromosome Xq28 melanoma antigen family A2a (MAGEA2A), melanoma antigen family A12 (MAGEA12), melanoma antigen family A2b (MAGEA2B), melanoma antigen family A3 (MAGEA3), caltractin (CALT), NAD(P)H dehydrogenase-like protein (NSDHL), and U1> |
| 7006 | 20142 | 33560 | 4.69 | 1.0E-07 | BE047871.1 | EST_HUMAN | tz43d06.y1 NCI CGAP_Bm52 Homo sapiens cDNA clone IMAGE:2281339 5' |
| 7006 | 20142 | 33561 | 4.69 | 1.0E-07 | BE047871.1 | EST_HUMAN | tz43d06.y1 NCI CGAP_Bm52 Homo sapiens cDNA clone IMAGE:2281339 5' |
| 7662 | 20729 | 34205 | 7.6 | 1.0E-07 | N55081.1 | EST_HUMAN | y43c07.s1 Soares_fetal_liver_spleen_1NFLS Homo sapiens cDNA clone IMAGE:245484 3' |
| 7826 | 20881 | 34982 | 0.69 | 1.0E-07 | BF375909.1 | EST_HUMAN | PM4-TN0024-030800-002-b05 TN0024 Homo sapiens cDNA |
| 7826 | 20881 | 34983 | 0.69 | 1.0E-07 | BF375909.1 | EST_HUMAN | PM4-TN0024-030800-002-b05 TN0024 Homo sapiens cDNA |
| 7854 | 20809 | 34413 | 1.24 | 1.0E-07 | AL163281.2 | NT | Homo sapiens chromosome 21 segment HS21C081 |
| 8410 | 21491 | 35020 | 2.76 | 1.0E-07 | P07435 | SWISSPROT | ENTEROPEPTIDASE (ENTEROKINASE) |
| 8410 | 21491 | 35021 | 2.76 | 1.0E-07 | P07435 | SWISSPROT | ENTEROPEPTIDASE (ENTEROKINASE) |
| 9155 | 22233 | 35776 | 2.7 | 1.0E-07 | AA693576.1 | EST_HUMAN | z151e10.s1 Soares_fetal_liver_spleen_1NFLS S1 Homo sapiens cDNA clone IMAGE:434346 3' |
| 9470 | 22527 | 38090 | 1.05 | 1.0E-07 | P57110 | SWISSPROT | ADAM-TS 8 PRECURSOR (A DISINTEGRIN AND METALLOPROTEINASE WITH THROMBOSPONDIN MOTIFS 8) (ADAM-TS8) (METH-2) |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 9816 | 22859 | 36436 | 0.6 | 1.0E-07 | BE327943.1 | EST_HUMAN | h28h06.x1 NCL_CGAP_Mel16 Homo sapiens cDNA clone IMAGE:3171419 3' similar to contains MER18.13 |
| 10140 | 23178 | 36776 | 2.35 | 1.0E-07 | BF674524.1 | EST_HUMAN | MER18 repetitive element; |
| 10149 | 23187 | 36784 | 1.23 | 1.0E-07 | AA36631.1 | EST_HUMAN | 602137714F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4274426 5' |
| 10682 | 23716 | | 1.22 | 1.0E-07 | AL163282.2 | NT | EST185054 Brain IV Homo sapiens cDNA |
| 12085 | 25055 | 38771 | 2.35 | 1.0E-07 | AI341136.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C082 |
| 12506 | 25939 | 31761 | 3.37 | 1.0E-07 | BE048770.1 | EST_HUMAN | q889e03.x1 NCL_CGAP_GC8 Homo sapiens cDNA clone IMAGE:2009692 3' |
| 12659 | 25438 | | 1.45 | 1.0E-07 | X64467.1 | NT | h53e11.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3132212 3' similar to TR:O65722 O65722 |
| 12852 | 25666 | | 2.1 | 1.0E-07 | X51755.1 | NT | DJ1163J1.1; |
| 7433 | 20510 | 33682 | 0.75 | 9.0E-08 | AI639382.1 | EST_HUMAN | H. sapiens ALAD gene for porphobilinogen synthase |
| 10091 | 23129 | 36732 | 2.04 | 9.0E-08 | AV734819.1 | EST_HUMAN | Human lambda-immunoglobulin constant region complex (germline) |
| 11457 | 24517 | 38185 | 1.92 | 9.0E-08 | AI891052.1 | EST_HUMAN | h51b05.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2080195 3' |
| 11965 | 24650 | 38656 | 2.38 | 9.0E-08 | AL163301.2 | NT | AV734819 cDNA Homo sapiens cDNA clone cBABF806 5' |
| 12458 | 25320 | | 2.51 | 9.0E-08 | AI251973.1 | NT | wf30a07.x1 NCL_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2446832 3' similar to contains OPR.12 |
| 622 | 16017 | | 2.09 | 8.0E-08 | AI911352.1 | EST_HUMAN | OFR repetitive element; |
| 1075 | 14241 | | 1.01 | 8.0E-08 | BE795469.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C101 |
| 3634 | 16788 | | 1.57 | 8.0E-08 | BE795469.1 | EST_HUMAN | Homo sapiens partial steerin-1 gene |
| 6937 | 22016 | 36657 | 6.35 | 8.0E-08 | AI752367.1 | EST_HUMAN | wf16b05.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2328273 3' |
| 8937 | 22016 | 36558 | 6.35 | 8.0E-08 | AI752367.1 | EST_HUMAN | 601560133F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943976 5' |
| 8937 | 22887 | 36449 | 3.03 | 8.0E-08 | AW970693.1 | EST_HUMAN | 601560133F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943976 5' |
| 10788 | 23821 | 37445 | 0.48 | 8.0E-08 | AF111167.2 | NT | cn15c02.x1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBC_cn15c02 random |
| 11523 | 24578 | | 1.73 | 8.0E-08 | AF253417.1 | NT | cn15c02.x1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBC_cn15c02 random |
| 82 | 13317 | 26345 | 3.91 | 7.0E-08 | Q02257 | SWISSPROT | EST382778 MAGE resequences; MAGK Homo sapiens cDNA |
| 1382 | 14546 | 27622 | 19.51 | 7.0E-08 | X04809.1 | NT | Homo sapiens Jun dimerization protein gene, partial cds; cfos gene, complete cds; and unknown gene |
| 3666 | 16829 | 29839 | 0.88 | 7.0E-08 | P15305 | SWISSPROT | Homo sapiens microsomal epoxide hydrolase (EPHX1) gene, complete cds |
| 3666 | 16829 | 29840 | 0.88 | 7.0E-08 | P15305 | SWISSPROT | ANKYRIN 1 (ERYTHROCYTE ANKYRIN) |
| 5332 | 18446 | 31413 | 0.82 | 7.0E-08 | T65891.1 | EST_HUMAN | Rat mRNA for ribosomal protein L31 |
| 11052 | 24129 | | 1.73 | 7.0E-08 | AI635743.1 | EST_HUMAN | DYNEIN HEAVY CHAIN (DYHC) |
| 11070 | 24955 | 38658 | 4.1 | 7.0E-08 | U24070.1 | NT | DYNEIN HEAVY CHAIN (DYHC) |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 12978 | 18829 | 28838 | 1.84 | 7.0E-08 | P16305 | SWISSPROT | DYNEIN HEAVY CHAIN (DYHC) |
| 12978 | 18829 | 28840 | 1.84 | 7.0E-08 | P16305 | SWISSPROT | DYNEIN HEAVY CHAIN (DYHC) |
| 840 | 14018 | 27073 | 3.3 | 6.0E-08 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 840 | 14018 | 27074 | 3.3 | 6.0E-08 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 2436 | 16564 | 28693 | 1.77 | 6.0E-08 | BE144398.1 | EST_HUMAN | MRO-HT0168-191189-004-g09 HT0168 Homo sapiens cDNA |
| 3129 | 16305 | 28318 | 0.68 | 6.0E-08 | 7652473 | NT | Homo sapiens KIAA1074 protein (KIAA1074), mRNA |
| 4363 | 17508 | 30487 | 1.15 | 6.0E-08 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 8137 | 21219 | | 0.59 | 6.0E-08 | P08547 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 9529 | 22594 | | 0.55 | 8.0E-08 | AA827075.1 | EST_HUMAN | ab56c05.e1 NCLCGAP_GCB1 Homo sapiens cDNA clone IMAGE:1335368 3' similar to contains MER12.b3 MER12 repetitive element; |
| 11701 | 24698 | 38390 | 2.18 | 6.0E-08 | P11369 | SWISSPROT | RETROVIRUS-RELATED POLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE ; ENDONUCLEASE] |
| 11823 | 24812 | | 1.43 | 6.0E-08 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 87 | 13322 | 28350 | 2.17 | 5.0E-08 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 2309 | 16441 | 28576 | 3.93 | 5.0E-08 | AA493851.1 | EST_HUMAN | rh03b09.s1 NCLCGAP_Thy1 Homo sapiens cDNA clone IMAGE:943183 similar to contains Alu repetitive element; |
| 12185 | 25144 | | 4.55 | 5.0E-08 | P06681 | SWISSPROT | COMPLEMENT C2 PRECURSOR (C3/C5 CONVERTASE) |
| 12882 | 26271 | 32077 | 1.77 | 5.0E-08 | AW851878.1 | EST_HUMAN | QV0-CT0225-131089-034-a12 CT0225 Homo sapiens cDNA |
| 1799 | 14948 | 28040 | 1.03 | 4.0E-08 | P25723 | SWISSPROT | DORSAL-VENTRAL PATTERNING TOLL-PROTEIN PRECURSOR |
| 1799 | 14948 | 28041 | 1.03 | 4.0E-08 | P25723 | SWISSPROT | DORSAL-VENTRAL PATTERNING TOLL-PROTEIN PRECURSOR |
| 2950 | 18127 | | 1.05 | 4.0E-08 | AL079861.1 | EST_HUMAN | DKFZp434J0426_r1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434J0426 5' |
| 3132 | 16308 | | 1.01 | 4.0E-08 | AI078417.1 | EST_HUMAN | cd05e02.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1674438 3' similar to contains Alu repetitive element; |
| 4024 | 17180 | 30188 | 0.65 | 4.0E-08 | U82668.1 | NT | Homo sapiens ehox gene, alternatively spliced products, complete cds |
| 6535 | 19598 | 33071 | 1.07 | 4.0E-08 | P62924 | SWISSPROT | URIDINE PHOSPHORYLASE (UDRPASE) |
| 8968 | 22077 | 35617 | 0.9 | 4.0E-08 | O15393 | SWISSPROT | TRANSMEMBRANE PROTEASE, SERINE 2 |
| 8940 | 22416 | 35969 | 1.13 | 4.0E-08 | L42571.1 | NT | Cricetus griseus ribosomal transcription factor (UBF2) mRNA, complete cds |
| 8846 | 22885 | | 1.58 | 4.0E-08 | P08547 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 10336 | 23571 | | 0.85 | 4.0E-08 | AI016342.1 | EST_HUMAN | at78d12.s1 Soares_tetral_fetus_Nb2Hf9_Bw Homo sapiens cDNA clone IMAGE:1622803 3' |
| 10597 | 23632 | 37241 | 4.75 | 4.0E-08 | AI050027.1 | EST_HUMAN | ar22d10.s1 Gesseler Wilms tumor Homo sapiens cDNA clone IMAGE:1680411 3' similar to contains Alu repetitive element; contains element MER22 repetitive element; |
| 11328 | 24391 | 38037 | 5.18 | 4.0E-08 | AA393627.1 | EST_HUMAN | z178d08.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:728247 5' similar to TR:G505579 G505579 NA/CAN_K-EXCHANGER ; |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 11328 | 24361 | 38038 | 5.16 | 4.0E-08 | AA393827.1 | EST_HUMAN | z76b08.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:728247 5' similar to TR:G505679 |
| 11349 | 24411 | 38064 | 11.88 | 4.0E-08 | BF692493.1 | EST_HUMAN | G505679 NA/CALX-EXCHANGER. ; |
| 11349 | 24411 | 38065 | 11.88 | 4.0E-08 | BF692493.1 | EST_HUMAN | 602248024F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:4333300 5' |
| 12160 | 26108 | | 1.93 | 4.0E-08 | W76159.1 | EST_HUMAN | 602248024F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:4333300 5' |
| 12804 | 26668 | | 2.01 | 4.0E-08 | A1343553.1 | EST_HUMAN | z65g03.r1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:345558 5' similar to contains L1.1 L1 repetitive element ; |
| 5728 | 18921 | 32215 | 2.27 | 3.0E-08 | BE018348.1 | EST_HUMAN | tb95a11.x1 NCL_CGAP_Cot6 Homo sapiens cDNA clone IMAGE:2062078 5' similar to contains MER18.b3 |
| 7115 | 18541 | 31498 | 6.01 | 3.0E-08 | A1762737.1 | EST_HUMAN | MER18 MER18 repetitive element ; |
| 7711 | 20776 | 34282 | 1.43 | 3.0E-08 | AL163246.2 | NT | SYNTAXIN 17. ; |
| 7928 | 20976 | | 3.32 | 3.0E-08 | A1436352.1 | EST_HUMAN | qs7611.y5 NCL_CGAP_P28 Homo sapiens cDNA clone IMAGE:1944045 5' |
| 10102 | 23140 | | 0.63 | 3.0E-08 | AF055066.1 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 11276 | 24343 | 37983 | 1.64 | 3.0E-08 | A1218001.1 | EST_HUMAN | th93h09.x1 Soares_NSF_F8_gw_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2126273 3' similar to TR:Q13537 Q13537 MER37 TRANSPORTABLE ELEMENT, COMPLETE CONSENSUS SEQUENCE. ; |
| 11967 | 24942 | 38648 | 1.32 | 3.0E-08 | AF111167.2 | NT | Homo sapiens MHC class 1 region |
| 12156 | 25125 | | 33.85 | 3.0E-08 | R18420.1 | EST_HUMAN | qh21a04.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1845284 3' |
| 211 | 13434 | | 4.16 | 2.0E-08 | AW302996.1 | EST_HUMAN | Homo sapiens Jun dimerization protein gene, partial cds; cfos gene, complete cds; and unknown gene |
| 236 | 13458 | | 5.76 | 2.0E-08 | AA425698.1 | EST_HUMAN | Y02204.r1 Soares Infant brain 1NIB Homo sapiens cDNA clone IMAGE:30948 5' similar to contains repetitive element ; |
| 509 | 13703 | 28732 | 4.46 | 2.0E-08 | AF198349.1 | NT | z67f06.x1 NCL_CGAP_Lu26 Homo sapiens cDNA clone IMAGE:2767139 3' |
| 677 | 13863 | 26893 | 9.7 | 2.0E-08 | AW888438.1 | EST_HUMAN | zw48f07.r1 Soares_fetal_heart_Nb2HF8_gw Homo sapiens cDNA clone IMAGE:773317 5' similar to contains Alu repetitive element; contains element MER16 repetitive element ; |
| 677 | 13863 | 26894 | 6.7 | 2.0E-08 | AW888438.1 | EST_HUMAN | Gallus gallus Dach2 protein (Dach2) mRNA, complete cds |
| 1014 | 14186 | | 7.75 | 2.0E-08 | BE280477.1 | EST_HUMAN | MIR0-OT0080-240200-001-g08 OT0080 Homo sapiens cDNA |
| 1379 | 14528 | 27602 | 1.46 | 2.0E-08 | AL163247.2 | NT | MIR0-OT0080-240200-001-g08 OT0080 Homo sapiens cDNA |
| 1774 | 14923 | 28017 | 0.98 | 2.0E-08 | AW841890.1 | EST_HUMAN | 601165321F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3138893 5' |
| 1780 | 14929 | | 2.08 | 2.0E-08 | BE734871.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C047 |
| 1802 | 15045 | | 6.7 | 2.0E-08 | AW270271.1 | EST_HUMAN | IL5-CN0024-030300-028-C01 CN0024 Homo sapiens cDNA |
| 2608 | 16732 | | 1.86 | 2.0E-08 | K00216.1 | NT | 601570463F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3845189 5' |
| 3276 | 16453 | 29474 | 5.61 | 2.0E-08 | O42280 | SWISSPROT | xp43f1.1x1 NCL_CGAP_HN11 Homo sapiens cDNA clone IMAGE:2743149 3' |
| | | | | | | | Sheep Hle-IRNA-GUG |
| | | | | | | | WNT-14 PROTEIN PRECURSOR |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 3278 | 18453 | 28475 | 5.61 | 2.0E-08 | O42280 | SWISSPROT | WNT-14 PROTEIN PRECURSOR |
| 3862 | 17120 | | 1.63 | 2.0E-08 | AW813620.1 | EST_HUMAN | RC3-ST0197-161099-012-b03 ST0197 Homo sapiens cDNA |
| 4189 | 17339 | 30332 | 0.62 | 2.0E-08 | U82668.1 | NT | Homo sapiens shox gene, alternatively spliced products, complete cds |
| 4525 | 17664 | | 1.48 | 2.0E-08 | AA459040.1 | EST_HUMAN | aa28c07.r1 NCJ_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:814380 5' similar to contains L1.12 L1 repetitive element; |
| 5072 | 18200 | | 3.5 | 2.0E-08 | AW572881.1 | EST_HUMAN | he17h08.x2 NCJ_CGAP_CML1 Homo sapiens cDNA clone IMAGE:2919327 3' similar to contains Alu repetitive element; |
| 5783 | 18945 | 32247 | 0.85 | 2.0E-08 | AA813204.1 | EST_HUMAN | ab0h11.s1 Scores_festig_NHT Homo sapiens cDNA clone 1377189 3' |
| 5955 | 19141 | 32457 | 1 | 2.0E-08 | AW088924.1 | EST_HUMAN | xx32c04.x1 NCJ_CGAP_Ov23 Homo sapiens cDNA clone IMAGE:2993482 3' similar to contains MER18.b3 |
| 8193 | 21275 | 34798 | 1.11 | 2.0E-08 | P10272 | SWISSPROT | MER18 MER18 repetitive element; |
| 8301 | 21383 | 34904 | 1.5 | 2.0E-08 | AA480121.1 | EST_HUMAN | POL POLYPROTEIN [CONTAINS: PROTEASE; REVERSE TRANSCRIPTASE; ENDONUCLEASE] |
| 9286 | 22362 | | 0.89 | 2.0E-08 | AU139878.1 | EST_HUMAN | ab02g06.g1 Stragene fetal retina 937202 Homo sapiens cDNA clone IMAGE:839674 3' |
| 10738 | 23771 | 37381 | 0.83 | 2.0E-08 | N78097.1 | EST_HUMAN | AU139979 PLACE1 Homo sapiens cDNA clone PLACE1011719 5' |
| 10738 | 23771 | 37382 | 0.83 | 2.0E-08 | N78097.1 | EST_HUMAN | y7202.r1 Scores fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:248283 5' similar to contains LTR1.b3 LTR1 repetitive element; |
| 12478 | 26328 | | 1.77 | 2.0E-08 | AL163284.2 | NT | y7202.r1 Scores fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:248283 5' similar to contains LTR1.b3 LTR1 repetitive element; |
| 13065 | 26159 | | 1.8 | 2.0E-08 | 11431676 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 1639 | 18041 | 27770 | 1.05 | 1.0E-08 | P31792 | SWISSPROT | Homo sapiens hypothetical protein FLJ11342 (FLJ11342), mRNA |
| 1672 | 14824 | 27607 | 1.33 | 1.0E-08 | P13002 | SWISSPROT | POL POLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE; ENDONUCLEASE] |
| 1672 | 14824 | 27608 | 1.33 | 1.0E-08 | P13002 | SWISSPROT | PROTEIN GRAINY-HEAD (DNA-BINDING PROTEIN ELF-1) (ELEMENT 1-BINDING ACTIVITY) |
| 1816 | 14865 | 28058 | 1.68 | 1.0E-08 | AF125348.1 | NT | PROTEIN GRAINY-HEAD (DNA-BINDING PROTEIN ELF-1) (ELEMENT 1-BINDING ACTIVITY) |
| 2110 | 15248 | | 2.97 | 1.0E-08 | BE141959.1 | EST_HUMAN | PROTEIN GRAINY-HEAD (DNA-BINDING PROTEIN ELF-1) (ELEMENT 1-BINDING ACTIVITY) |
| 3261 | 18435 | 28453 | 0.95 | 1.0E-08 | BE246844.1 | EST_HUMAN | PROTEIN GRAINY-HEAD (DNA-BINDING PROTEIN ELF-1) (ELEMENT 1-BINDING ACTIVITY) |
| 3261 | 18435 | 28454 | 0.95 | 1.0E-08 | BE246844.1 | EST_HUMAN | (TRANSCRIPTION FACTOR NTF-1) |
| 5716 | 18909 | 32204 | 4.51 | 1.0E-08 | AJ010770.1 | NT | (TRANSCRIPTION FACTOR NTF-1) |
| 7946 | 20998 | 34507 | 0.94 | 1.0E-08 | P18474 | SWISSPROT | Homo sapiens caveolin 1 (CAV1) gene, exon 3 and partial cds |
| 8224 | 21306 | 34826 | 0.62 | 1.0E-08 | AL163302.2 | NT | PM2-H10130-150959-001-412 HT0130 Homo sapiens cDNA |
| | | | | | | | TCBAP1D6232 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project-TCBA Homo sapiens cDNA clone TCBAP5232 |
| | | | | | | | TCBAP1D6232 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project-TCBA Homo sapiens cDNA clone TCBAP6232 |
| | | | | | | | Homo sapiens hyperion gene, exons 1-50 |
| | | | | | | | 52 KD RO PROTEIN (SJOGREN SYNDROME TYPE A ANTIGEN (SS-A)) (RO(SS-A)) |
| | | | | | | | Homo sapiens chromosome 21 segment HS21C102 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8320 | 21402 | 34927 | 0.54 | 1.0E-08 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 8320 | 21402 | 34928 | 0.64 | 1.0E-08 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 8744 | 21823 | 35359 | 2.27 | 1.0E-08 | AI016304.1 | EST_HUMAN | cd5a05.s1 Scores_testis_NHT Homo sapiens cDNA clone IMAGE:1618738 3' |
| 9405 | 22479 | | 0.56 | 1.0E-08 | P08593 | SWISSPROT | S-ANTIGEN PROTEIN PRECURSOR |
| 9406 | 22480 | 36043 | 0.85 | 1.0E-08 | BE072572.1 | EST_HUMAN | PM2-BT0546-210100-004-402 BT0546 Homo sapiens cDNA |
| 10171 | 23208 | 36801 | 0.84 | 1.0E-08 | P78110 | SWISSPROT | TRICARBOXYLATE TRANSPORT PROTEIN PRECURSOR (CITRATE TRANSPORT PROTEIN) (CTP) |
| 10778 | 23811 | 37434 | 0.87 | 1.0E-08 | P88063 | SWISSPROT | BONE MORPHOGENETIC PROTEIN 1 PRECURSOR (BMP-1) |
| 11595 | 24648 | 38332 | 3.56 | 1.0E-08 | AF044083.1 | NT | Homo sapiens major histocompatibility locus class III region |
| 12881 | 25391 | | 3.06 | 1.0E-08 | X51755.1 | NT | Human lambda-immunoglobulin constant region complex (germline) |
| 13137 | 25925 | | 1.26 | 1.0E-08 | BF375398.1 | EST_HUMAN | MR4-ST0240-240700-013-g04 ST0240 Homo sapiens cDNA |
| 4357 | 17500 | 30481 | 4.17 | 9.0E-09 | AL163279.2 | NT | Homo sapiens chromosome 21 segment HS21C079 |
| 4357 | 17500 | 30482 | 4.17 | 9.0E-09 | AL163279.2 | NT | Homo sapiens chromosome 21 segment HS21C079 |
| 10287 | 23302 | | 0.63 | 9.0E-09 | T07950.1 | EST_HUMAN | ye58a12.s1 Scores fetal liver spleen 1NFSL Homo sapiens cDNA clone IMAGE:121918 3' |
| 7414 | 20492 | 33660 | 8.1 | 8.0E-09 | AI163500.1 | EST_HUMAN | q442e07.x1 Scores_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:1732184 3' similar to contains MSR1.11 MSR1 repetitive element |
| 8188 | 21271 | 34798 | 2.54 | 8.0E-09 | AW800159.1 | EST_HUMAN | CM0-NY1004-100300-273-a08 NY1004 Homo sapiens cDNA |
| 9189 | 22867 | | 2.53 | 8.0E-09 | AA038892.1 | EST_HUMAN | cp74d08.s1 Scores_NFL_I_GBC_S1 Homo sapiens cDNA clone IMAGE:1692675 3' |
| 3895 | 18558 | | 1.98 | 7.0E-09 | D68942.1 | NT | Homo sapiens DNA for 3-ketacyl-CoA thiolase beta-subunit of mitochondrial trifunctional protein, exon 2, 3 |
| 4115 | 17269 | | 0.98 | 7.0E-09 | U50871.1 | NT | Human familial Alzheimer's disease (STM2) gene, complete cds |
| 8086 | 21168 | | 0.58 | 7.0E-09 | BF108755.1 | EST_HUMAN | 745a10.x1 Scores_NSF_F8_gw_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3524443 3' similar to contains MER28.b2 MER29 repetitive element |
| 8237 | 21319 | | 0.99 | 7.0E-09 | AA256200.1 | EST_HUMAN | zr6cd05.r1 Scores_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:681982 5' similar to contains L1.12 L1 repetitive element |
| 9480 | 22517 | 36080 | 2.88 | 7.0E-09 | L09709.1 | NT | Human lysosomal membrane glycoprotein-2 (LAMP2) gene, 5' end and flanking region |
| 10366 | 23421 | 37028 | 1.95 | 7.0E-09 | BE254850.1 | EST_HUMAN | 60111173F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3351834 5' |
| 10564 | 23589 | | 0.76 | 7.0E-09 | AA038526.1 | EST_HUMAN | zr6cd07.s1 Scores retina N2b4HR Homo sapiens cDNA clone IMAGE:381156 3' similar to contains L1.12 L1 repetitive element |
| 10910 | 23993 | | 2.01 | 7.0E-09 | T07950.1 | EST_HUMAN | ye58a12.s1 Scores fetal liver spleen 1NFSL Homo sapiens cDNA clone IMAGE:121918 3' |
| 2221 | 15355 | | 0.95 | 8.0E-09 | AL040439.1 | EST_HUMAN | DKFZp434C0514_r1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434C0514 5' |
| 6095 | 18223 | 31189 | 6.2 | 8.0E-09 | BE109421.1 | EST_HUMAN | PM1-HT0527-160200-001-h05 HT0527 Homo sapiens cDNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 6498 | 18695 | 31711 | 0.93 | 6.0E-09 | AW195784.1 | EST_HUMAN | xn85h08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2701311 3' |
| 8775 | 21864 | 36398 | 1.11 | 6.0E-09 | BE181653.1 | EST_HUMAN | MR3-HT0446-260300-201-h12 HT0446 Homo sapiens cDNA |
| 9377 | 22452 | 36014 | 2.18 | 6.0E-09 | 4503710 | NT | Homo sapiens fibroblast growth factor receptor 3 (achondroplasia, thanatophoric dwarfism) (FGFR3) mRNA |
| 10483 | 23618 | | 3.4 | 6.0E-09 | AF200923.2 | NT | Homo sapiens testis-specific kinase substrate (TSKS) gene, complete cds |
| 10969 | 24049 | 37682 | 1.88 | 6.0E-09 | BF108755.1 | EST_HUMAN | 7146a10.x1 Soares_NSF_F8_gw_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3624443 3' similar to |
| 12089 | 25069 | 38776 | 1.37 | 6.0E-09 | C01803.1 | EST_HUMAN | contains MER28.b2 MER28 repetitive element; |
| 1447 | 14800 | 27677 | 3.47 | 5.0E-09 | BE149264.1 | EST_HUMAN | HUMGS0003762 Human adult (K. Okubo) Homo sapiens cDNA |
| 1800 | 16043 | 28154 | 7.4 | 5.0E-09 | AL163284.2 | NT | RC2-HT0252-120200-014-h10 HT0252 Homo sapiens cDNA |
| 6640 | 19703 | 33075 | 2.22 | 5.0E-09 | AA359464.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C084 |
| | | | | | | | EST68748 Fetal lung II Homo sapiens cDNA 5' end |
| | | | | | | | Human germline T-cell receptor beta chain Dopamine-beta-hydroxylase-like, TRY1, TRY2, TRY3, TCRBV27S1P, TCRBV22S1A2N1T, TCRBV931A1T, TCRBV761A1N2T, TCRBV651A1T, TCRBV19S3, TCRBV657P, TCRBV73A2T, TCRBV13S2A1T, TCRBV93A2P1T, TCRBV73A2A1N4T, TCRBV13S913S> |
| 6988 | 18507 | 31523 | 0.66 | 5.0E-09 | U68059.1 | NT | OLFACTORY RECEPTOR-LIKE PROTEIN COR5 |
| 8785 | 21864 | 36407 | 0.63 | 5.0E-09 | P37071 | SWISSPROT | PM2-UM0053-240300-005-c09 UM0053 Homo sapiens cDNA |
| 10300 | 23335 | 36940 | 3.25 | 5.0E-09 | AW798667.1 | EST_HUMAN | z60e09.e1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:795880 3' |
| 11944 | 24930 | 38832 | 1.87 | 5.0E-09 | AA460142.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C082 |
| 534 | 13727 | | 1.64 | 4.0E-09 | AL163282.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 987 | 14159 | | 2.75 | 4.0E-09 | AL163285.2 | NT | Homo sapiens hypothetical protein (AF038169), mRNA |
| 1497 | 14850 | 27732 | 1.86 | 4.0E-09 | Q558718 | NT | EST56385 Infant brain Homo sapiens cDNA 5' end similar to similar to heat shock protein, 80 kDa |
| 2500 | 15027 | 28747 | 5.32 | 4.0E-09 | AA350878.1 | EST_HUMAN | z604e06.r1 Soares_NHMPu_S1 Homo sapiens cDNA clone IMAGE:788288 5' |
| 8030 | 21113 | 34631 | 0.53 | 4.0E-09 | AA495747.1 | EST_HUMAN | y411e07.s1 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:88804 3' |
| 8719 | 21789 | 36334 | 1.02 | 4.0E-09 | T64942.1 | EST_HUMAN | wmb4110.x1 NCI_CGAP_U12 Homo sapiens cDNA clone IMAGE:2443627 3' |
| 11330 | 24393 | 38041 | 9.51 | 4.0E-09 | AI886401.1 | EST_HUMAN | z34a12.r1 Soares_NHMPu_S1 Homo sapiens cDNA clone IMAGE:665278 5' similar to gb:U07807 |
| 11376 | 24440 | | 1.44 | 4.0E-09 | AA195142.1 | EST_HUMAN | DYNAMIN-1 (HUMAN); |
| | | | | | | | h09e09.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3168120 3' similar to contains MER18.t3 |
| 2427 | 15555 | 28882 | 4.51 | 3.0E-09 | BE222239.1 | EST_HUMAN | MER18 repetitive element; |
| 2810 | 15742 | 28858 | 1.08 | 3.0E-09 | BE222239.1 | EST_HUMAN | h09e09.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3168120 3' similar to contains MER18.t3 |
| 2716 | 15834 | 28944 | 0.89 | 3.0E-09 | P23249 | SWISSPROT | MER18 repetitive element; |
| | | | | | | | PROTEIN MOV-10 |
| 3408 | 16578 | 29593 | 0.9 | 3.0E-09 | BE222239.1 | EST_HUMAN | h09e09.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3168120 3' similar to contains MER18.t3 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 3484 | 16831 | | 0.7 | 3.0E-09 | AA442272.1 | EST_HUMAN | z64a04.r1 Scores_testis_NHT Homo sapiens cDNA clone IMAGE:767422 5' |
| 4212 | 17361 | | 0.62 | 3.0E-09 | X16674.1 | NT | H. sapiens PADPRP-1 gene for NAD(+) ADP-ribosyltransferase |
| 4546 | 17694 | 30688 | 3.47 | 3.0E-09 | AF175325.1 | NT | Homo sapiens eukaryotic initiation factor 4A1 (EIF-4A1) gene, partial cds |
| 4634 | 17770 | 30751 | 1.19 | 3.0E-09 | Q9Y3R5 | SWISSPROT | 288.1 KDA PROTEIN C21ORF5 (KIAA0933) |
| 8084 | 21169 | 34682 | 1.1 | 3.0E-09 | BE465780.1 | EST_HUMAN | h80a02.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3194090 3' similar to TR-O55091 |
| 10453 | 23488 | 37096 | 1.87 | 3.0E-09 | AL163247.2 | NT | O58091 IMPACT PROTEIN. ; |
| 10792 | 23825 | 37448 | 0.46 | 3.0E-09 | Q10940 | SWISSPROT | Homo sapiens chromosome 21 segment HS21C047 |
| 11272 | 24340 | 37976 | 3.15 | 3.0E-09 | BF109943.1 | EST_HUMAN | HYPOTHETICAL 13.1 KD PROTEIN B0310.4 IN CHROMOSOME X |
| 11272 | 24340 | 37979 | 3.15 | 3.0E-09 | BF109943.1 | EST_HUMAN | 7172c08.x1 Scores_NSF_F8_gw_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3627030 3' |
| 835 | 14013 | | 0.98 | 2.0E-09 | X16674.1 | NT | 7172c08.x1 Scores_NSF_F8_gw_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3627030 3' |
| 1287 | 14443 | 27511 | 4.7 | 2.0E-09 | AL163284.2 | NT | H. sapiens PADPRP-1 gene for NAD(+) ADP-ribosyltransferase |
| 1691 | 14843 | | 10.71 | 2.0E-09 | AL118573.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C084 |
| 2403 | 15534 | 28681 | 2.24 | 2.0E-09 | Q9Y3R5 | SWISSPROT | Homo sapiens chromosome 21 segment HS21C084 |
| 4048 | 17204 | 30214 | 3.01 | 2.0E-09 | O60241 | SWISSPROT | DKFZp761B1710_r1 761 (synonym: hary2) Homo sapiens cDNA clone DKFZp761B1710 5' |
| 4119 | 17273 | 30272 | 0.9 | 2.0E-09 | A1263476.1 | EST_HUMAN | 288.1 KDA PROTEIN C21ORF5 (KIAA0933) |
| 5284 | 18383 | 31348 | 0.82 | 2.0E-09 | M23161.1 | NT | BRAIN-SPECIFIC ANGIOGENESIS INHIBITOR 2 PRECURSOR |
| 5837 | 19027 | 32333 | 0.87 | 2.0E-09 | A1004062.1 | EST_HUMAN | q107d09.x1 Scores_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1855763 3' |
| 6278 | 19462 | | 0.75 | 2.0E-09 | AL163249.2 | NT | Human transposon-like element mRNA |
| 6919 | 20234 | | 0.88 | 2.0E-09 | AA357407.1 | EST_HUMAN | cl47b09.e1 Scores_testis_NHT Homo sapiens cDNA clone IMAGE:1618897 3' |
| 7608 | 20679 | 34155 | 8.81 | 2.0E-09 | AA461430.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C049 |
| 7892 | 20757 | 34242 | 0.66 | 2.0E-09 | W28834.1 | EST_HUMAN | EST66142 Kidney IX Homo sapiens cDNA 5' end similar to EST containing L1 repeat |
| 7971 | 21021 | 34534 | 0.59 | 2.0E-09 | A1243732.1 | EST_HUMAN | z63h06.r1 Scores_testis_NHT Homo sapiens cDNA clone IMAGE:786187 5' similar to contains |
| 8809 | 21688 | 35528 | 1.2 | 2.0E-09 | A1271735.1 | NT | Alu repetitive element; |
| 10824 | 23857 | 37480 | 0.85 | 2.0E-09 | AV688842.1 | EST_HUMAN | 53d11 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA |
| 12745 | 14013 | | 20.06 | 2.0E-09 | X16674.1 | NT | q188g10.x1 Scores_NFL_T_GEC_S1 Homo sapiens cDNA clone IMAGE:1864114 3' |
| 12830 | 26168 | | 1.86 | 2.0E-09 | AA226070.1 | EST_HUMAN | Homo sapiens Xq pseudautosomal region; segment 172 |
| 1019 | 14190 | | 1.19 | 1.0E-09 | W78152.1 | EST_HUMAN | AV688642 GKX Homo sapiens cDNA clone GKXACA11 5' |
| 1133 | 14268 | 27353 | 1.43 | 1.0E-09 | | NT | H. sapiens PADPRP-1 gene for NAD(+) ADP-ribosyltransferase |
| 1133 | 14268 | 27354 | 1.43 | 1.0E-09 | | NT | nc11c02.r1 NCL_CGAP_P1 Homo sapiens cDNA clone IMAGE:1007810 similar to contains Alu repetitive element |
| | | | 1.86 | 2.0E-09 | AA226070.1 | EST_HUMAN | z179c03.s1 Scores_fetal_heart_NbH19W Homo sapiens cDNA clone IMAGE:348863 3' similar to |
| | | | 1.19 | 1.0E-09 | W78152.1 | EST_HUMAN | dbL028932 PEROXISOME PROLIFERATOR ACTIVATED RECEPTOR ALPHA (HUMAN); |
| | | | 1.43 | 1.0E-09 | 5031624 | NT | Homo sapiens CCAAT-box-binding transcription factor (CBF2) mRNA |
| | | | 1.43 | 1.0E-09 | 5031624 | NT | Homo sapiens CCAAT-box-binding transcription factor (CBF2) mRNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 2571 | 16806 | | 1.15 | 1.0E-09 | AI358086.1 | EST_HUMAN | qy64e11.x1 NCL_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2016812 3' similar to contains MER12.12 MER12 repetitive element; |
| 2894 | 16131 | 29146 | 2.02 | 1.0E-09 | U90017.1 | NT | Homo sapiens basic transcription factor 2 p44 (btf2p44) gene, partial cds, neuronal apoptosis inhibitory protein (nailp) and survival motor neuron protein (smn) genes, complete cds |
| 2992 | 16168 | 29184 | 6.17 | 1.0E-09 | M28699.1 | NT | Homo sapiens nuclear phosphoprotein B23 (NPM1) mRNA, complete cds |
| 2992 | 16168 | 29185 | 6.17 | 1.0E-09 | M28699.1 | NT | Homo sapiens nuclear phosphoprotein B23 (NPM1) mRNA, complete cds |
| 3103 | 16279 | 29283 | 0.99 | 1.0E-09 | BE635440.1 | EST_HUMAN | 301088602F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3445177 5' |
| 4920 | 18050 | | 8.15 | 1.0E-09 | AA719297.1 | EST_HUMAN | zh35b03.s1 Soares_pineal_gland_N3HPG Homo sapiens cDNA clone IMAGE:414029 3' similar to contains Alu repetitive element; contains element MER22 repetitive element; |
| 5341 | 18454 | | 0.8 | 1.0E-09 | AA921958.1 | EST_HUMAN | am44g12.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1549942 3' |
| 5620 | 18514 | 31882 | 0.85 | 1.0E-09 | AL163283.2 | NT | Homo sapiens chromosome 21 segment HS21C083 |
| 5952 | 19138 | 32454 | 1.29 | 1.0E-09 | U07000.1 | NT | Human breakpoint cluster region (BCR) gene, complete cds |
| 6272 | 19446 | 32794 | 3.34 | 1.0E-09 | P26594 | SWISSPROT | CIRCUMSPOROZOITE PROTEIN PRECURSOR (CS) |
| 8594 | 21865 | 35206 | 0.92 | 1.0E-09 | AI688474.1 | EST_HUMAN | wd39005.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2330481 3' similar to contains MER25.11 MER25 repetitive element; |
| 10520 | 23658 | | 2.72 | 1.0E-09 | AL163283.2 | NT | Homo sapiens chromosome 21 segment HS21C083 |
| 12642 | 26120 | 31868 | 1.71 | 1.0E-09 | 11418127 | NT | Homo sapiens GTP binding protein 1 (GTPBP1), mRNA |
| 12787 | 25510 | | 1.42 | 1.0E-09 | T57366.1 | EST_HUMAN | y651g12.s1 Stragano fetal spleen (8937205) Homo sapiens cDNA clone IMAGE:74758 3' |
| 13132 | 26020 | | 1.66 | 1.0E-09 | AF260225.1 | NT | Homo sapiens TESTIN 2 and TESTIN 3 genes, complete cds, alternatively spliced |
| 1337 | 14484 | 27564 | 1.52 | 8.0E-10 | AW687740.1 | EST_HUMAN | MRO-SJN0040-050500-002-c07 SN0040 Homo sapiens cDNA |
| 2895 | 16074 | 26092 | 3.74 | 9.0E-10 | AI870071.1 | EST_HUMAN | we78b03.x1 Soares_Diackgraefe_colon_NHCD Homo sapiens cDNA clone IMAGE:2347253 3' similar to SW:RL29_HUMAN P47914 60S RIBOSOMAL PROTEIN L29; contains element P17R5 repetitive element ; |
| 6973 | 20201 | 33827 | 4.88 | 9.0E-10 | AI452982.1 | EST_HUMAN | 448b09.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2144537 3' similar to TR:O00372 O00372 PUTATIVE P160.; |
| 151 | 13378 | 26408 | 9.26 | 8.0E-10 | U63630.2 | NT | Homo sapiens MCM4 (MCM4) and DNA-PKcs (PRKDC) genes, partial cds |
| 3423 | 16592 | 29607 | 0.65 | 8.0E-10 | BE080748.1 | EST_HUMAN | QV1-BT0631-150200-071-01 BT0631 Homo sapiens cDNA |
| 4318 | 17481 | 30446 | 5.45 | 8.0E-10 | AA376832.1 | EST_HUMAN | EST89564 Small intestine I Homo sapiens cDNA 5' end |
| 10170 | 23207 | | 2.51 | 8.0E-10 | U36308.2 | NT | Homo sapiens lens major intrinsic protein (MIP) gene, complete cds |
| 718 | 13901 | 26941 | 21.38 | 7.0E-10 | 7706225 | NT | Homo sapiens TPA inducible protein (LOC61656), mRNA |
| 719 | 13901 | 26942 | 21.38 | 7.0E-10 | 7706225 | NT | Homo sapiens TPA inducible protein (LOC61656), mRNA |
| 1651 | 14804 | 27890 | 2.56 | 7.0E-10 | Q13342 | SWISSPROT | LYSP100 PROTEIN (LYMPHOID-RESTRICTED HOMOLOG OF SP100) |
| 2826 | 15749 | | 20.25 | 7.0E-10 | P08547 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 3157 | 16332 | 29341 | 2.25 | 7.0E-10 | X00856.1 | NT | H. sapiens DHFR gene, exon 3 |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6314 | 19486 | 32841 | 4.06 | 7.0E-10 | AA345220.1 | EST_HUMAN | EST151247 Gall bladder II Homo sapiens cDNA 5' end |
| 7574 | 20648 | 34124 | 1.37 | 7.0E-10 | BF362883.1 | EST_HUMAN | IL3-HT0619-110700-206-D12 HT0619 Homo sapiens cDNA |
| 7834 | 20889 | | 1.85 | 7.0E-10 | P35084 | SWISSPROT | DNA-DIRECTED RNA POLYMERASE II LARGEST SUBUNIT |
| 8163 | 21245 | 34764 | 1.54 | 7.0E-10 | AF029701.2 | NT | Homo sapiens presenilin-1 gene, exons 1 and 2 |
| 8163 | 21245 | 34765 | 1.54 | 7.0E-10 | AF029701.2 | NT | Homo sapiens presenilin-1 gene, exons 1 and 2 |
| 936 | 14111 | 27171 | 8.44 | 6.0E-10 | AJ400877.1 | NT | Homo sapiens ASCL3 gene, C11orf14 gene, C11orf15 gene, C11orf16 gene and C11orf17 gene |
| 2742 | 16859 | 28571 | 1.83 | 6.0E-10 | A1424405.1 | EST_HUMAN | h02d07.x1 NCI_CGAP_P128 Homo sapiens cDNA clone IMAGE:2095021 3' |
| 4615 | 17752 | 30733 | 1.88 | 6.0E-10 | Q02817 | SWISSPROT | MUCIN 2 PRECURSOR (INTESTINAL MUCIN 2) |
| 4861 | 17994 | | 3.15 | 6.0E-10 | AW653718.1 | EST_HUMAN | RC3-CT0264-031059-012-g12 CT0264 Homo sapiens cDNA |
| 8983 | 22062 | 35602 | 0.96 | 6.0E-10 | P33730 | SWISSPROT | E-SELECTIN PRECURSOR (ENDOTHELIAL LEUKOCYTE ADHESION MOLECULE 1)(ELAM-1) |
| 8983 | 22062 | 35603 | 0.96 | 6.0E-10 | P33730 | SWISSPROT | (LEUKOCYTE-ENDOTHELIAL CELL ADHESION MOLECULE 2) (LECAM2) (CD62E) |
| 8934 | 22674 | 36458 | 0.48 | 6.0E-10 | P88073 | SWISSPROT | E-SELECTIN PRECURSOR (ENDOTHELIAL LEUKOCYTE ADHESION MOLECULE 1)(ELAM-1) |
| 12223 | 25172 | | 1.95 | 6.0E-10 | AW071923.1 | EST_HUMAN | (LEUKOCYTE-ENDOTHELIAL CELL ADHESION MOLECULE 2) (LECAM2) (CD62E) |
| 760 | 13660 | | 5.29 | 5.0E-10 | AL046804.1 | EST_HUMAN | ENTEROPEPTIDASE PRECURSOR (ENTEROKINASE) |
| 3564 | 16729 | 29745 | 1.14 | 5.0E-10 | Q01033 | SWISSPROT | DKFZp434N219_1 434 (synonym: hba3) Homo sapiens cDNA clone DKFZp434N219 5' |
| 5109 | 18233 | 31202 | 1.4 | 6.0E-10 | AF181897.1 | NT | HYPOTHELICAL GENE 48 PROTEIN |
| 7475 | 20350 | | 1.85 | 5.0E-10 | BF105169.1 | EST_HUMAN | Homo sapiens WRN (WRN) gene, complete cds |
| 9736 | 22801 | 36374 | 2.24 | 5.0E-10 | P34678 | SWISSPROT | 601822184F1 NIH_MGC_76 Homo sapiens cDNA clone IMAGE:4042413 5' |
| 9736 | 22801 | 36375 | 2.24 | 5.0E-10 | P34678 | SWISSPROT | HYPOTHELICAL 67.9 KD PROTEIN ZK688.8 IN CHROMOSOME III |
| | | | | | | | HYPOTHELICAL 67.9 KD PROTEIN ZK688.8 IN CHROMOSOME III |
| 12040 | 25021 | 38725 | 1.31 | 5.0E-10 | AF091415.1 | NT | Maceca tonkeana isolectin 6690nkpoea NADH dehydrogenase subunit 4L gene, complete cds; and NADH dehydrogenase subunit 4 gene, mitochondrial genes encoding mitochondrial proteins, partial cds |
| 114 | 13345 | | 1.09 | 4.0E-10 | A1221083.1 | EST_HUMAN | qg09109.x1 Soares_placenta_8b39weeks_ZNHP81c9W Homo sapiens cDNA clone IMAGE:1759049 3' similar to contains LTR8.b2 LTR8 repetitive element; |
| 2052 | 15193 | 28308 | 1.4 | 4.0E-10 | AW594709.1 | EST_HUMAN | hg58g03.x1 NCI_CGAP_G068 Homo sapiens cDNA clone IMAGE:2849844 3' similar to contains Alu repetitive element; |
| 2840 | 15763 | 28377 | 6.79 | 4.0E-10 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 7327 | 20408 | 33871 | 17.76 | 4.0E-10 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 10368 | 23433 | 37039 | 0.71 | 4.0E-10 | AW293243.1 | EST_HUMAN | UI-H-B12-ah-a-Q7-QUI.s1 NCI_CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2727061 3' |
| 10662 | 23696 | 37308 | 1.12 | 4.0E-10 | A1267342.1 | EST_HUMAN | eq63h11.x1 Stanley Frontal SN pool 2 Homo sapiens cDNA clone IMAGE:2035653 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 10794 | 23827 | 37450 | 0.54 | 4.0E-10 | BE169208.1 | EST_HUMAN | PM1-HT0521-120200-001-008 HT0521 Homo sapiens cDNA |
| 10794 | 23827 | 37451 | 0.54 | 4.0E-10 | BE169208.1 | EST_HUMAN | PM1-HT0521-120200-001-008 HT0521 Homo sapiens cDNA |
| 938 | 14112 | 27173 | 2.24 | 3.0E-10 | N38113.1 | EST_HUMAN | W32708.s1 Soares melanocyte 2NbtHM Homo sapiens cDNA clone IMAGE:272863 3' similar to contains L1.11 L1 repetitive element: |
| 1382 | 14537 | | 5.3 | 3.0E-10 | AY006160.1 | NT | Homo sapiens extracellular glycoprotein lactacin precursor, gene, complete cds |
| 4657 | 17793 | 30777 | 0.94 | 3.0E-10 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 4657 | 17793 | 30778 | 0.94 | 3.0E-10 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 6360 | 18463 | 31428 | 0.89 | 3.0E-10 | L34079.1 | NT | Human XRCC1 DNA repair gene, genomic |
| 5571 | 18767 | 31808 | 0.78 | 3.0E-10 | N50109.1 | EST_HUMAN | Y21708.s1 Soares multiple sclerosis 2NbtHMSP Homo sapiens cDNA clone IMAGE:282782 3' |
| 6332 | 19503 | 32861 | 2.06 | 3.0E-10 | P20350 | SWISSPROT | RHOMBLOID PROTEIN (VEINLET PROTEIN) |
| 6481 | 18948 | 33010 | 3.82 | 3.0E-10 | BE302970.1 | EST_HUMAN | ba76d09.y1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2906319 5' |
| 7937 | 20987 | 34495 | 1.42 | 3.0E-10 | AV743302.1 | EST_HUMAN | AV743302 CB Homo sapiens cDNA clone CBFBGD08 5' |
| 7937 | 20987 | 34496 | 1.42 | 3.0E-10 | AV743302.1 | EST_HUMAN | AV743302 CB Homo sapiens cDNA clone CBFBGD08 5' |
| 8928 | 22007 | 36548 | 1.57 | 3.0E-10 | H87208.1 | EST_HUMAN | ys74b12.s1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:220611 3' similar to contains MER29 repetitive element: |
| 9249 | 22326 | 35872 | 1.52 | 3.0E-10 | AW850731.1 | EST_HUMAN | IL3-CT0219-160200-064-B06 CT0219 Homo sapiens cDNA |
| 9249 | 22326 | 35873 | 1.52 | 3.0E-10 | AW850731.1 | EST_HUMAN | IL3-CT0219-160200-064-B08 CT0219 Homo sapiens cDNA |
| 9541 | 22808 | | 0.78 | 3.0E-10 | AF020503.1 | NT | Homo sapiens FRA3B common fragile region, diadenosine triphosphatase hydrolase (FHT) gene, exon 5 |
| 10879 | 23713 | | 1.95 | 3.0E-10 | T65991.1 | EST_HUMAN | yc11e12.f1 Stralagene lung (#637210) Homo sapiens cDNA clone IMAGE:80398 5' |
| 10820 | 23853 | | 0.96 | 3.0E-10 | AA760294.1 | EST_HUMAN | nz38g03.s1 NCI CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1289908 3' |
| 12841 | 26619 | 31977 | 1.87 | 3.0E-10 | BE179517.1 | EST_HUMAN | IL3-HT0818-110600-106-E07 HT0818 Homo sapiens cDNA |
| 36 | 13274 | 26278 | 2.08 | 2.0E-10 | P48988 | SWISSPROT | MAJOR CENTROMERE AUTOANTIGEN B (CENTROMERE PROTEIN B) (CENP-B) |
| 36 | 13274 | 26278 | 2.08 | 2.0E-10 | P48988 | SWISSPROT | MAJOR CENTROMERE AUTOANTIGEN B (CENTROMERE PROTEIN B) (CENP-B) |
| 1948 | 15089 | | 1.66 | 2.0E-10 | U80017.1 | NT | Homo sapiens basic transcription factor 2 p44 (btf2p44) gene, partial cds, neuronal apoptosis inhibitory protein (nrip) and survival motor neuron protein (smn) genes, complete cds |
| 3051 | 16227 | | 0.84 | 2.0E-10 | BF675047.1 | EST_HUMAN | 602136640F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4273377 5' |
| 5924 | 19111 | | 2.3 | 2.0E-10 | Q28940 | SWISSPROT | (HPRG) |
| 6360 | 19548 | 32905 | 1.56 | 2.0E-10 | AF280107.1 | NT | Homo sapiens cytochrome P450 polypeptide 43 (CYP3A43) gene, partial cds; cytochrome P450 polypeptide 4 (CYP3A4) and cytochrome P450 polypeptide 7 (CYP3A7) genes, complete cds; and cytochrome P450 polypeptide 5 (CYP3A5) gene, partial cds |
| 7537 | 20610 | 34084 | 6.41 | 2.0E-10 | BE791092.1 | EST_HUMAN | 607586208F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3940824 5' |
| 8203 | 21285 | 34807 | 0.58 | 2.0E-10 | P26809 | SWISSPROT | POL POLYPROTEIN [CONTAINS: PROTEASE: REVERSE TRANSCRIPTASE: RIBONUCLEASE H] |
| 8203 | 21285 | 34808 | 0.58 | 2.0E-10 | P26809 | SWISSPROT | POL POLYPROTEIN [CONTAINS: PROTEASE: REVERSE TRANSCRIPTASE: RIBONUCLEASE H] |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 9502 | 22559 | | 1.09 | 2.0E-10 | BF434565.1 | EST_HUMAN | 7c78d08.x1 NCL_CGAP_Kid111 Homo sapiens cDNA clone IMAGE:3942303 3' similar to contains L1.13 L1 repetitive element; |
| 11609 | 24662 | | 1.33 | 2.0E-10 | AI882183.1 | EST_HUMAN | 1a10f12.x1 Soares total_fetus_Nb2-IF8_9w Homo sapiens cDNA clone IMAGE:2043695 3' |
| 1538 | 14691 | | 3.09 | 1.0E-10 | AW897767.1 | EST_HUMAN | MRO-SN0038-280300-001-107 SN0038 Homo sapiens cDNA |
| 1637 | 14789 | 27674 | 3.37 | 1.0E-10 | AV652123.1 | EST_HUMAN | AV652123 GLC Homo sapiens cDNA clone GLCXA11 3' |
| 2649 | 16772 | | 2.16 | 1.0E-10 | AW852001.1 | EST_HUMAN | QV6-CT0225-167189-068-608 CT0225 Homo sapiens cDNA |
| 3689 | 16763 | 28768 | 0.9 | 1.0E-10 | AW832912.1 | EST_HUMAN | QV2-TT0003-161189-013-g10 TT0003 Homo sapiens cDNA |
| 3629 | 16793 | | 0.87 | 1.0E-10 | AL041686.1 | EST_HUMAN | DKFZp434N1317_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434N1317 5' |
| 3947 | 16793 | | 0.76 | 1.0E-10 | AL041686.1 | EST_HUMAN | DKFZp434N1317_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434N1317 5' |
| 4123 | 17277 | | 7.33 | 1.0E-10 | AF213884.1 | NT | Homo sapiens nuclear factor of kappa light polypeptide gene enhancer in B-cells 1 (NFKB1) gene, complete cds |
| 4245 | 17391 | 30378 | 16.24 | 1.0E-10 | U52111.2 | NT | Homo sapiens X28 region near ALD locus containing dual specificity phosphatase 9 (DUSP9), ribosomal protein L18a (RPL18a), Ca2+/Calmodulin-dependent protein kinase I (CAMKI), creatine transporter (CRT), CDM protein (CDM), adrenoleukodystrophy protein > |
| 4245 | 17391 | 30379 | 16.24 | 1.0E-10 | U52111.2 | NT | Homo sapiens X28 region near ALD locus containing dual specificity phosphatase 9 (DUSP9), ribosomal protein L18a (RPL18a), Ca2+/Calmodulin-dependent protein kinase I (CAMKI), creatine transporter (CRT), CDM protein (CDM), adrenoleukodystrophy protein > |
| 4253 | 17369 | 30388 | 1.76 | 1.0E-10 | AB031089.1 | NT | Human pregnancy-specific glycoprotein beta-1 (SP1) mRNA, last exon |
| 4285 | 17430 | | 2.28 | 1.0E-10 | M30629.1 | NT | Homo sapiens PCCX1 mRNA for protein containing CXXC domain 1, complete cds |
| 5277 | 18396 | | 1.01 | 1.0E-10 | AI797746.1 | EST_HUMAN | w82704.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2347615 3' similar to contains MER31.1 MER31 repetitive element; |
| 7644 | 20713 | | 0.58 | 1.0E-10 | P08548 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 7860 | 20914 | 34419 | 0.69 | 1.0E-10 | AU128584.1 | EST_HUMAN | AU128584 NT2RP2 Homo sapiens cDNA clone NT2RP2003761 5' |
| 8434 | 21616 | 36046 | 1.14 | 1.0E-10 | AW408990.1 | EST_HUMAN | 16_6A4 Fetal brain library Homo sapiens cDNA |
| 8855 | 21934 | | 1.82 | 1.0E-10 | AI288340.1 | EST_HUMAN | gm04610.x1 NCL_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1880874 3' similar to contains L1.11 L1 repetitive element; |
| 10408 | 23441 | | 6.24 | 1.0E-10 | AA081888.1 | EST_HUMAN | zn23g06.r1 Stragene neuroepithelium NT2RAM1 837234 Homo sapiens cDNA clone IMAGE:548314 5' |
| 11154 | 24225 | 37854 | 3.5 | 1.0E-10 | AI038280.1 | EST_HUMAN | cy85f03.x1 Soares_fetal_liver_spleen_INFLS_S1 Homo sapiens cDNA clone IMAGE:1672681 3' |
| 12165 | 18503 | | 1.8 | 1.0E-10 | X87344.1 | NT | H.sapiens DMA, DMB, HLA-z1, IIP2, LMP2, TAP1, LMP7, TAP2, DOB, DOB2 and RING8, 9, 13 and 14 genes |
| 272 | 13480 | 28521 | 0.87 | 9.0E-11 | BE145800.1 | EST_HUMAN | IL2-H10203-291099-016-c08 H10203 Homo sapiens cDNA |
| 2171 | 16306 | 28433 | 6.02 | 9.0E-11 | AL134395.1 | EST_HUMAN | DKFZp547D225_r1 547 (synonym: hibr1) Homo sapiens cDNA clone DKFZp547D225 5' |
| 2171 | 16306 | 28434 | 6.02 | 9.0E-11 | AL134395.1 | EST_HUMAN | DKFZp547D225_r1 547 (synonym: hibr1) Homo sapiens cDNA clone DKFZp547D225 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 3470 | 16637 | 28657 | 2.98 | 9.0E-11 | AL134395.1 | EST_HUMAN | DKFZp547D225_1 547 (synonym: hfbt1) Homo sapiens cDNA clone DKFZp547D225 5' |
| 3470 | 16637 | 28658 | 2.98 | 9.0E-11 | AL134395.1 | EST_HUMAN | DKFZp547D225_1 547 (synonym: hfbt1) Homo sapiens cDNA clone DKFZp547D225 5' |
| 4822 | 17759 | 30741 | 0.8 | 9.0E-11 | AA775985.1 | EST_HUMAN | ae7801.s1 Strelage schizo brain S11 Homo sapiens cDNA clone IMAGE:870287 3' |
| 6692 | 18886 | | 3.05 | 9.0E-11 | BE078780.1 | EST_HUMAN | RC8-BT0827-140200-011-E08 BT0827 Homo sapiens cDNA |
| 10357 | 23392 | 37002 | 1.17 | 9.0E-11 | AA324960.1 | EST_HUMAN | EST27872 Cerebellum II Homo sapiens cDNA 5' end |
| 10357 | 23392 | 37003 | 1.17 | 9.0E-11 | AA324960.1 | EST_HUMAN | EST27872 Cerebellum II Homo sapiens cDNA 5' end |
| 12558 | 25378 | 32072 | 2.45 | 9.0E-11 | C16835.1 | EST_HUMAN | C16835 Clontech human aorta polyA+ mRNA (#6572) Homo sapiens cDNA clone GEN-606B08 5' |
| 3185 | 16930 | | 10.53 | 8.0E-11 | H19971.1 | EST_HUMAN | Y53F11.s1 Soares adult brain N2b5HB55Y Homo sapiens cDNA clone IMAGE:172173 3' similar to contains L1 repetitive element; |
| 4154 | 17906 | 30300 | 5.37 | 8.0E-11 | N23712.1 | EST_HUMAN | Yw46e08.s1 Weizmann Olfactory Epithelium Homo sapiens cDNA clone IMAGE:255288 3' |
| 5913 | 19701 | 32415 | 0.66 | 8.0E-11 | AW674316.1 | EST_HUMAN | ba60p04.x1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2800882 3' |
| 6811 | 19935 | | 0.62 | 8.0E-11 | AW168158.1 | EST_HUMAN | x45h11.x1 NCJ CGAP Brn60 Homo sapiens cDNA clone IMAGE:2621061 3' similar to contains MER10.11 MER10 repetitive element; |
| 1478 | 14632 | 27717 | 2.09 | 7.0E-11 | AA330642.1 | EST_HUMAN | EST34392 Embryo, 8 week I Homo sapiens cDNA 5' end |
| 8895 | 21775 | 35307 | 2.61 | 7.0E-11 | AF163864.1 | NT | Homo sapiens SNCA isoform (SNCA) gene, complete cds, alternatively spliced |
| 10434 | 23469 | | 1.37 | 7.0E-11 | P11369 | SWISSPROT | RETROVIRUS-RELATED POLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE ; |
| 425 | 13620 | 26661 | 6.19 | 6.0E-11 | M55270.1 | NT | ENDONUCLEASE |
| 425 | 13620 | 26662 | 6.19 | 6.0E-11 | M55270.1 | NT | Human matrix Gla protein (MGP) gene, complete cds |
| 6882 | 20014 | 33424 | 0.91 | 6.0E-11 | L44140.1 | NT | Human matrix Gla protein (MGP) gene, complete cds |
| 7870 | 20824 | 34431 | 3.5 | 6.0E-11 | P08547 | SWISSPROT | (G6PD) gene, complete cds's |
| 8559 | 21640 | 35179 | 6.99 | 6.0E-11 | AV727859.1 | EST_HUMAN | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 9514 | 22879 | 36145 | 0.5 | 6.0E-11 | BE083509.1 | EST_HUMAN | AV727859 HTC Homo sapiens cDNA clone HTASC06 5' |
| 12 | 13250 | 26260 | 1 | 5.0E-11 | AL163283.2 | NT | GM0-BT0281-031189-087-e03 BT0281 Homo sapiens cDNA |
| 3450 | 13250 | 28250 | 1.24 | 5.0E-11 | AL163283.2 | NT | Homo sapiens chromosome 21 segment HS21C083 |
| 6946 | 19804 | 33181 | 1.92 | 5.0E-11 | AL163213.2 | NT | Homo sapiens chromosome 21 segment HS21C083 |
| 7699 | 20764 | 34248 | 11.57 | 5.0E-11 | 11416799 | NT | Homo sapiens chromosome 21 segment HS21C013 |
| 1433 | 14568 | | 1.38 | 4.0E-11 | AA436042.1 | EST_HUMAN | Homo sapiens protodactherin beta 3 (PCDH3), mRNA |
| 2851 | 15956 | 29074 | 9.84 | 4.0E-11 | BE885900.1 | EST_HUMAN | z01b12.1 Soares testis NHT Homo sapiens cDNA clone IMAGE:730559 5' |
| 3034 | 16210 | 29233 | 1.26 | 4.0E-11 | AL163247.2 | NT | 601507631F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3909295 5' |
| 4740 | 17875 | 30858 | 0.81 | 4.0E-11 | D44556.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C047 |
| 6605 | 19765 | 33154 | 3.29 | 4.0E-11 | P20095 | SWISSPROT | HUMSUP069 Human brain cDNA Homo sapiens cDNA clone 069 |
| | | | | | | | PRE-MRNA SPLICING FACTOR RNA HELICASE PRP2 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 7141 | 20276 | 33716 | 0.82 | 4.0E-11 | AA442630.1 | EST_HUMAN | z66f10.1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:757063 5' similar to TR:G1056250 G1059250 PHEROMONE RECEPTOR VN4.1 |
| 7632 | 20605 | | 3.66 | 4.0E-11 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 9595 | 22650 | | 1.56 | 4.0E-11 | BE149425.1 | EST_HUMAN | RC1-HT0256-210100-013-f08 HT0256 Homo sapiens cDNA |
| 8862 | 22602 | 36487 | 0.79 | 4.0E-11 | AI609753.1 | EST_HUMAN | ifb2g12.x1 NCL_CGAP_Bm23 Homo sapiens cDNA clone IMAGE:2105830 3' similar to WP:ZK363.1 CE00385 |
| 10859 | 23882 | 37613 | 0.94 | 4.0E-11 | BF367293.1 | EST_HUMAN | MRO-GN0024-180900-008-H08 GN0024 Homo sapiens cDNA |
| 12794 | 25530 | 32008 | 1.71 | 4.0E-11 | 11945732 | NT | Homo sapiens SH3-domain binding protein 1 (SH3BP1), mRNA |
| 1521 | 14974 | 27766 | 4 | 3.0E-11 | 6879077 | NT | Mus musculus expressed in non-metastatic cells 2, protein (NM23B) (Nm2), mRNA |
| 4391 | 17534 | | 1.35 | 3.0E-11 | AA309248.1 | EST_HUMAN | EST180120 Liver, hepatocellular carcinoma Homo sapiens cDNA 5' end q38c04.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1752102 3' similar to contains MER10.13 MER10 repetitive element: |
| 982 | 14165 | 27215 | 1.43 | 2.0E-11 | AI160502.1 | EST_HUMAN | y943e12.1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:35144 5' |
| 1212 | 14373 | 27434 | 20.98 | 2.0E-11 | R24807.1 | EST_HUMAN | y943e12.1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:35144 5' |
| 1212 | 14373 | 27435 | 20.98 | 2.0E-11 | R24807.1 | EST_HUMAN | Gallus gallus rho-globin, beta-H globin, beta-A globin, epsilon-globin, and olfactory receptor-like protein COR3 beta (COR3 beta) genes, complete cds |
| 1844 | 14796 | 27880 | 4.44 | 2.0E-11 | L17432.1 | NT | Gallus gallus rho-globin, beta-H globin, beta-A globin, epsilon-globin, and olfactory receptor-like protein COR3 beta (COR3 beta) genes, complete cds |
| 1844 | 14796 | 27881 | 4.44 | 2.0E-11 | L17432.1 | NT | Human endogenous retrovirus HERV-P-T47D |
| 2823 | 15937 | 29047 | 1.09 | 2.0E-11 | AF087913.1 | NT | RETKOVIRUS-RELATED GAG POLYPROTEIN (VERSION 1) |
| 3266 | 16440 | 28401 | 5.56 | 2.0E-11 | P10263 | SWISSPROT | Im64c09.x1 NCL_CGAP_Kd11 Homo sapiens cDNA clone IMAGE:2161936 3' |
| 3403 | 16573 | 29568 | 0.82 | 2.0E-11 | AI478617.1 | EST_HUMAN | POLYPEPTIDE N-ACETYL GALACTOSAMINYL TRANSFERASE (PROTEIN UDP ACETYL GALACTOSAMINYL TRANSFERASE) (UDP-GALNAc:POLYPEPTIDE, N- ACETYL GALACTOSAMINYL TRANSFERASE) (GALNAc-T1) |
| 3448 | 16616 | 29634 | 0.67 | 2.0E-11 | Q10473 | SWISSPROT | |
| 3586 | 16760 | | 1.01 | 2.0E-11 | AF020503.1 | NT | Homo sapiens FRA3B common fragile region, diadenosine triphosphate hydrolase (FhlT) gene, exon 5 |
| 3797 | 16958 | 28662 | 0.94 | 2.0E-11 | P70213 | SWISSPROT | FRIEND VIRUS SUSCEPTIBILITY PROTEIN 1 |
| 4586 | 17704 | | 1.07 | 2.0E-11 | BE06537.1 | EST_HUMAN | RC3-BT0316-170200-014-e06 BT0316 Homo sapiens cDNA |
| 4728 | 17863 | | 0.8 | 2.0E-11 | AL163227.2 | NT | Homo sapiens chromosome 21 segment HS21C027 |
| 5051 | 18179 | | 1.86 | 2.0E-11 | BE062558.1 | EST_HUMAN | QV2-BT0258-261099-014-a01 BT0258 Homo sapiens cDNA EST178226 Colon carcinoma (HCC) cell line Homo sapiens cDNA 5' end similar to alpha-2- macroglobulin |
| 5142 | 18265 | 31234 | 0.82 | 2.0E-11 | AA307331.1 | EST_HUMAN | |
| 6263 | 19437 | 32784 | 1.23 | 2.0E-11 | AW877806.1 | EST_HUMAN | QV2-PT0073-280300-109-H08 PT0073 Homo sapiens cDNA |

Page 227 of 550

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6440 | 19607 | 32970 | 2 | 2.0E-11 | AA581028.1 | EST_HUMAN | nc83h05.1 NCI_CGAP_G01 Homo sapiens cDNA clone IMAGE:797433 5' similar to SW-PR16_YEAST P15938 PRE-MRNA SPLICING FACTOR RNA HELICASE PRP16.; |
| 7345 | 20425 | 33888 | 0.85 | 2.0E-11 | BF592945.1 | EST_HUMAN | 787c03.x1 NCI_CGAP_G08 Homo sapiens cDNA clone IMAGE:3442865 3' |
| 8068 | 21148 | | 0.59 | 2.0E-11 | P37072 | SWISSPROT | OLFACTORY RECEPTOR-LIKE PROTEIN COR6 |
| 9424 | 22498 | | 1.39 | 2.0E-11 | AF029308.1 | NT | Homo sapiens chromosome 9 duplication of the T cell receptor beta locus and trypsinogen gene families |
| 10491 | 23526 | 37135 | 5.13 | 2.0E-11 | Q13606 | SWISSPROT | OLFACTORY RECEPTOR 511 (OLFACTORY RECEPTOR-LIKE PROTEIN OLF1) |
| 10734 | 23767 | 37378 | 1.09 | 2.0E-11 | AW888874.1 | EST_HUMAN | RC4-OT0072-170400-013-c11 OT0072 Homo sapiens cDNA |
| 10734 | 23767 | 37377 | 1.09 | 2.0E-11 | AW888874.1 | EST_HUMAN | RC4-OT0072-170400-013-c11 OT0072 Homo sapiens cDNA |
| 11375 | 24436 | 38094 | 1.84 | 2.0E-11 | AA035369.1 | EST_HUMAN | ZK27g02.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:471794 3' |
| 11375 | 24436 | 38095 | 1.84 | 2.0E-11 | AA035369.1 | EST_HUMAN | ZK27g02.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:471794 3' |
| 11408 | 24669 | 38133 | 1.4 | 2.0E-11 | AA261950.1 | EST_HUMAN | za18b04.1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:685519 5' |
| 12122 | 25102 | 38807 | 12.19 | 2.0E-11 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 12297 | 26105 | | 1.85 | 2.0E-11 | AA704195.1 | EST_HUMAN | Z77ed03.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:460924 3' |
| 12328 | 25237 | | 1.44 | 2.0E-11 | AW642143.1 | EST_HUMAN | RC0-CN0027-210100-071-c01 CN0027 Homo sapiens cDNA |
| 12354 | 25256 | 32115 | 2.15 | 2.0E-11 | BF377889.1 | EST_HUMAN | GM2-TN0140-070600-372-g01 TN0140 Homo sapiens cDNA |
| 12641 | 26431 | | 1.43 | 2.0E-11 | D25217.2 | NT | Homo sapiens mRNA for KIAA0027 protein, partial cds |
| 12813 | 25542 | | 3.62 | 2.0E-11 | P08947 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 13180 | 25767 | | 2.5 | 2.0E-11 | 11417988 | NT | Homo sapiens SEG14 (S. cerevisiae)-like 2 (SEC14L2), mRNA |
| 693 | 13976 | 26909 | 1.67 | 1.0E-11 | AJ131016.1 | NT | Homo sapiens SOL gene locus |
| 806 | 13966 | 27038 | 1.72 | 1.0E-11 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C008 |
| 1244 | 14403 | 27484 | 2.91 | 1.0E-11 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C079 |
| 1528 | 14881 | | 1.82 | 1.0E-11 | AF119944.1 | NT | Homo sapiens PRO3078 mRNA, complete cds |
| 2095 | 15235 | 28358 | 0.94 | 1.0E-11 | P16258 | SWISSPROT | OXYSTEROL-BINDING PROTEIN |
| 2195 | 15330 | 28455 | 3.59 | 1.0E-11 | AF000573.1 | NT | Homo sapiens homogenisate 1,2-dioxygenase gene, complete cds |
| 2229 | 15363 | 28492 | 1.1 | 1.0E-11 | AA309318.1 | EST_HUMAN | EST-180188 Liver, hepatocellular carcinoma Homo sapiens cDNA 5' end similar to EST containing Alu repeat |
| 3588 | 16752 | 28767 | 0.95 | 1.0E-11 | BE004315.1 | EST_HUMAN | GM0-BN0105-170300-292-d12 BN0105 Homo sapiens cDNA |
| 5447 | 18647 | 31625 | 14.68 | 1.0E-11 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 5953 | 19139 | 32455 | 0.78 | 1.0E-11 | BF222646.1 | EST_HUMAN | 7p57d01.x1 NCI_CGAP_P128 Homo sapiens cDNA clone IMAGE:3649545 3' similar to contains MER10.b3 |
| 8398 | 21477 | 35004 | 2.65 | 1.0E-11 | 4886546 | NT | MER10 repetitive element |
| 8781 | 21860 | 35403 | 4.61 | 1.0E-11 | R13174.1 | EST_HUMAN | Homo sapiens PHD finger protein 2 (PHF2) mRNA |
| 9248 | 22325 | 35870 | 1.49 | 1.0E-11 | BF366119.1 | EST_HUMAN | Y73c03.1 Soares_infant_brain_1N1B Homo sapiens cDNA clone IMAGE:28168 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 9248 | 23225 | 38871 | 1.49 | 1.0E-11 | BF365110.1 | EST_HUMAN | QV4-NN1149-250600-423-e03 NN1149 Homo sapiens cDNA |
| 10626 | 23660 | | 0.54 | 1.0E-11 | AL163302.2 | NT | Homo sapiens chromosome 21 segment HS21C102 |
| 11568 | 24621 | 38302 | 2.02 | 1.0E-11 | BF680078.1 | EST_HUMAN | 602154807F1 NIH_MGC_B3 Homo sapiens cDNA clone IMAGE:4295877 5' |
| 12903 | 26870 | | 1.37 | 1.0E-11 | Z20377.1 | EST_HUMAN | HSAACACADH P, Human foetal Brain Whole tissue Homo sapiens cDNA |
| 3017 | 18183 | 29216 | 0.75 | 8.0E-12 | P20742 | SWISSPROT | PREGNANCY ZONE PROTEIN PRECURSOR |
| 10002 | 23040 | 36632 | 1.17 | 8.0E-12 | AL163300.2 | NT | Homo sapiens chromosome 21 segment HS21C100 |
| 10002 | 23040 | 36633 | 1.17 | 8.0E-12 | AL163300.2 | NT | Homo sapiens chromosome 21 segment HS21C100 |
| 8539 | 22604 | | 0.88 | 8.0E-12 | BE074720.1 | EST_HUMAN | IL6-B10578-130300-039-G12 B10578 Homo sapiens cDNA |
| 12408 | 29287 | | 4.68 | 8.0E-12 | AJ271738.1 | NT | Homo sapiens Xq pseudautosomal region; segment 2/2 |
| 4783 | 17918 | 30905 | 1.57 | 7.0E-12 | Q05604 | SWISSPROT | 34 KD SPICULE MATRIX PROTEIN PRECURSOR (LSM34) |
| 11631 | 24711 | 38402 | 6.8 | 7.0E-12 | AA704735.1 | EST_HUMAN | 223g01.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:451152 3' |
| 13225 | 25903 | | 1.18 | 7.0E-12 | D16473.1 | NT | Human mRNA, Xq terminal portion |
| 3637 | 18801 | | 0.96 | 6.0E-12 | AV730554.1 | EST_HUMAN | AV730554 HTF Homo sapiens cDNA clone HTFAW F08 5' |
| 4468 | 17608 | 30586 | 9.23 | 6.0E-12 | AA732516.1 | EST_HUMAN | nz28f1.s1 NCL_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1302573 3' similar to contains Alu repetitive element |
| 6338 | 18449 | 31418 | 5.12 | 6.0E-12 | AI459161.1 | EST_HUMAN | ij65g12.x1 Soares_NSF_F8_gW_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2148438 3' similar to contains MER10.12 MER10 MER10 repetitive element ; |
| 9188 | 22274 | 35611 | 1.09 | 6.0E-12 | AF003249.1 | NT | Merone saxatilis myosin heavy chain FM3A (FM3A) mRNA, complete cds |
| 9676 | 22637 | | 1.81 | 6.0E-12 | AA847898.1 | EST_HUMAN | cd10g11.s1 NCL_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1387588 similar to contains MER29.12 repetitive element ; |
| 13205 | 25786 | | 1.25 | 6.0E-12 | AW888946.1 | EST_HUMAN | MER29 repetitive element ; |
| 1068 | 14234 | 27293 | 2.37 | 5.0E-12 | T06573.1 | EST_HUMAN | RC4-OT0072-080400-012-111 OT0072 Homo sapiens cDNA |
| 3477 | 16844 | 26663 | 1.28 | 5.0E-12 | BE047778.1 | EST_HUMAN | EST04462 Fetal brain, Stratiene (cd1336206) Homo sapiens cDNA clone HFBVDV33 |
| 3821 | 16981 | 29984 | 7.44 | 6.0E-12 | AJ271736.1 | NT | tz42b05.y1 NCL_CGAP_Brn62 Homo sapiens cDNA clone IMAGE:2281217 5' |
| 6145 | 18323 | 32568 | 6.13 | 5.0E-12 | AL163278.2 | NT | Homo sapiens Xq pseudautosomal region; segment 2/2 |
| 6145 | 18323 | 32567 | 6.13 | 5.0E-12 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 6820 | 19780 | 33168 | 9.88 | 5.0E-12 | AW674760.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C078 |
| 7176 | 20052 | 33462 | 1.08 | 5.0E-12 | AL040739.1 | EST_HUMAN | EST386850 MAGE resequences, MAGN Homo sapiens cDNA |
| 7187 | 20052 | 33462 | 0.83 | 5.0E-12 | AL040738.1 | EST_HUMAN | DKFZp434B1615.s1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434B1615 3' |
| | | | | | | | DKFZp434B1615.s1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434B1615 3' |
| | | | | | | | z01g12.s1 Soares_fetal_heart_NbrH19W Homo sapiens cDNA clone IMAGE:375718 3' similar to contains L1.13 L1 repetitive element ; |
| 8424 | 21605 | 35038 | 1.28 | 5.0E-12 | AA033745.1 | EST_HUMAN | |
| 8897 | 21946 | | 0.55 | 5.0E-12 | AW987037.1 | EST_HUMAN | RC1-OT0086-220300-011-507 OT0086 Homo sapiens cDNA |
| 9195 | 22273 | | 0.77 | 5.0E-12 | AL079561.1 | EST_HUMAN | DKFZp434J0426_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434J0426 5' |
| 9308 | 22384 | 35036 | 2.52 | 5.0E-12 | AJ271735.1 | NT | Homo sapiens Xq pseudautosomal region; segment 1/2 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO. | Exon SEQ ID NO. | ORF SEQ ID NO. | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 9923 | 22578 | 36247 | 1.22 | 5.0E-12 | P34982 | SWISSPROT | OLFACTORY RECEPTOR 1D2 (OLFACTORY RECEPTOR-LIKE PROTEIN HGMP07E) (OLFACTORY RECEPTOR 17-4) (OR17-4) |
| 10482 | 23517 | | 4.8 | 5.0E-12 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 10573 | 23508 | 37213 | 0.69 | 5.0E-12 | AL163302.2 | NT | Homo sapiens chromosome 21 segment HS21C102 |
| 10763 | 23828 | 37449 | 0.6 | 5.0E-12 | 6978754 | NT | Rattus norvegicus Deleted in colorectal cancer (rat homolog) (Dcc), mRNA |
| 254 | 13474 | 26505 | 3.29 | 4.0E-12 | AA700326.1 | EST_HUMAN | z74g11.s1 Scores_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:460876 3' |
| 255 | 13474 | 26505 | 3.42 | 4.0E-12 | AA700326.1 | EST_HUMAN | z74g11.s1 Scores_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:460876 3' |
| 4742 | 17877 | 30860 | 0.88 | 4.0E-12 | AB88984.1 | EST_HUMAN | bx26h05.x1 NCI CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2270746 3' similar to TR:Q13539 Q13539 |
| 7797 | 20853 | | 0.71 | 4.0E-12 | BF445140.1 | EST_HUMAN | MARINER TRANSPOSASE. ; nad21b03.x1 NCI CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3386077 3' similar to contains MER7.b2 |
| 8437 | 21518 | | 4.81 | 4.0E-12 | AF109907.1 | NT | MER7 repetitive element ; Homo sapiens S164 gene, partial cds; PS1 and hypothetical protein genes, complete cds; and S171 gene, partial cds |
| 11338 | 24401 | 38050 | 4.33 | 4.0E-12 | AJ228043.1 | NT | Homo sapiens 859 kb contig between AML1 and CBR1 on chromosome 21q22, segment 3/3 |
| 12884 | 25458 | | 2.11 | 4.0E-12 | U78027.1 | NT | Homo sapiens Bruton's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44L) and FTP3 (FTP3) genes, complete cds |
| 631 | 13818 | 26839 | 2.58 | 3.0E-12 | AW341683.1 | EST_HUMAN | hd13d01.x1 Scores_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2808377 3' similar to TR:O14517 O14517 SMRP. ; |
| 631 | 13818 | 26840 | 2.58 | 3.0E-12 | AW341683.1 | EST_HUMAN | hd13d01.x1 Scores_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2808377 3' similar to TR:O14517 O14517 SMRP. ; |
| 5276 | 18395 | 31363 | 0.78 | 3.0E-12 | AL163268.2 | NT | Homo sapiens chromosome 21 segment HS21C068 |
| 5568 | 18765 | 31808 | 1.44 | 3.0E-12 | AF111168.2 | NT | Homo sapiens serine palmitoyl transferase, subunit II gene, complete cds; and unknown genes |
| 8570 | 21851 | 35183 | 0.5 | 3.0E-12 | O35453 | SWISSPROT | SERINE PROTEASE HEPSIN |
| 10891 | 23875 | 37606 | 2.32 | 3.0E-12 | U37872.1 | NT | Human prostate specific antigen gene, 5' flanking region |
| 10891 | 23875 | 37607 | 2.32 | 3.0E-12 | U37872.1 | NT | Human prostate specific antigen gene, 5' flanking region |
| 1685 | 14837 | 27921 | 1.24 | 2.0E-12 | AW802131.1 | EST_HUMAN | IL5-JM0071-120400-065-a05 UM0071 Homo sapiens cDNA |
| 3566 | 18721 | 29736 | 0.93 | 2.0E-12 | 6754495 | NT | Mus musculus keratin-associated protein 6.2 (Krtap6-2), mRNA |
| 4230 | 17377 | 30365 | 1.29 | 2.0E-12 | J01884.1 | NT | Rat U3A small nuclear RNA |
| 4230 | 17377 | 30366 | 1.29 | 2.0E-12 | J01884.1 | NT | Rat U3A small nuclear RNA |
| 4541 | 17079 | | 2.03 | 2.0E-12 | BE063509.1 | EST_HUMAN | GM0-BT0281-031199-087-a03 BT0281 Homo sapiens cDNA |
| 5018 | 18147 | 31123 | 0.71 | 2.0E-12 | O70306 | SWISSPROT | TBX15 PROTEIN (T-BOX PROTEIN 16) |
| 5018 | 18147 | 31124 | 0.71 | 2.0E-12 | O70306 | SWISSPROT | TBX15 PROTEIN (T-BOX PROTEIN 16) |
| 6606 | 18766 | | 2.08 | 2.0E-12 | AW071857.1 | EST_HUMAN | EST383948 IMAGE resequencing, MAGL Homo sapiens cDNA |
| 7326 | 20408 | 33870 | 3.85 | 2.0E-12 | T08169.1 | EST_HUMAN | EST06060 Infant Brain, Bonto Scores Homo sapiens cDNA clone HIBBA13 5' end |

Page 230 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 7499 | 20574 | 34047 | 1.33 | 2.0E-12 | BE173035.1 | EST_HUMAN | MRO-HT0559-200400-015-e08 HT0559 Homo sapiens cDNA |
| 7638 | 20893 | 34395 | 2.19 | 2.0E-12 | 11422228 | NT | Homo sapiens Ac-like transposable element (ALTE), mRNA |
| 9508 | 22774 | | 1.88 | 2.0E-12 | AF196864.1 | NT | Homo sapiens putative BPES syndrome breakpoint region protein gene, complete cds |
| 10191 | 28228 | | 8.32 | 2.0E-12 | BE165980.1 | EST_HUMAN | MR3-HT0487-150200-113-g01 HT0487 Homo sapiens cDNA |
| 10733 | 23768 | 37375 | 0.76 | 2.0E-12 | AI334130.1 | EST_HUMAN | qq0702.x1 Scores_NHMPu_S1 Homo sapiens cDNA clone IMAGE:1831835 3' similar to TR:Q13538 |
| 12129 | 25109 | 38813 | 1.53 | 2.0E-12 | AW242934.1 | EST_HUMAN | Q13538 ORF2: FUNCTION UNKNOWN. |
| 12313 | 25228 | | 1.34 | 2.0E-12 | AL163283.2 | NT | xn27h03.x1 NCL_GGAP_Kid11 Homo sapiens cDNA clone IMAGE:2684965 3' |
| 12516 | 28352 | | 1.46 | 2.0E-12 | 11418248 | NT | Homo sapiens chromosome 21 segment HS21C083 |
| 125 | 13354 | 26385 | 1.64 | 1.0E-12 | AW627674.1 | EST_HUMAN | Homo sapiens sulfotransferase-related protein (SULTX3), mRNA |
| 2044 | 15185 | | 1.78 | 1.0E-12 | AI871726.1 | EST_HUMAN | h80a09.x1 NCL_GGAP_U1 Homo sapiens cDNA clone IMAGE:2870040 3' similar to contains MER18.11 |
| 3138 | 16314 | 29326 | 1.04 | 1.0E-12 | AF000991.1 | NT | MER18 repetitive element ; |
| 3138 | 16314 | 29327 | 1.04 | 1.0E-12 | AF000991.1 | NT | wm51f07.x1 NCL_GGAP_U2 Homo sapiens cDNA clone IMAGE:2439493 3' similar to contains L1.b3 L1 |
| 3878 | 17135 | 30139 | 40.43 | 1.0E-12 | AU132248.1 | EST_HUMAN | repetitive element ; |
| 3878 | 17135 | 30139 | 40.43 | 1.0E-12 | AU132248.1 | EST_HUMAN | Homo sapiens testis-specific Testis Transcript Y 2 (TTY2) mRNA, partial cds |
| 6088 | 19269 | | 1.8 | 1.0E-12 | U82828.1 | NT | Homo sapiens testis-specific Testis Transcript Y 2 (TTY2) mRNA, partial cds |
| 6166 | 18342 | | 1.82 | 1.0E-12 | Q8Y2G7 | SWISSPROT | AU132248 NT2RP3 Homo sapiens cDNA clone NT2RP3004070 5' - |
| 6282 | 19455 | 32804 | 0.59 | 1.0E-12 | BF642800.1 | EST_HUMAN | AU132248 NT2RP3 Homo sapiens cDNA clone NT2RP3004070 5' |
| 6282 | 19455 | 32805 | 0.59 | 1.0E-12 | BF642800.1 | EST_HUMAN | Homo sapiens ataxia telangiectasia (ATM) gene, complete cds |
| 6862 | 19821 | 33208 | 0.83 | 1.0E-12 | AF229843.1 | NT | HYPOTHETICAL ZINC FINGER PROTEIN KIA0081 |
| 7265 | 20348 | 33800 | 2.53 | 1.0E-12 | AF196864.1 | NT | EST00008 Scores_NFL_T_QBC_S1 Homo sapiens cDNA clone IMAGE:1847869 5' |
| 7300 | 20382 | 33840 | 10.78 | 1.0E-12 | AI248533.1 | EST_HUMAN | EST00008 Scores_NFL_T_QBC_S1 Homo sapiens cDNA clone IMAGE:1847869 5' |
| 7300 | 20382 | 33841 | 10.78 | 1.0E-12 | AI248533.1 | EST_HUMAN | Mus musculus WNT-2 gene, partial cds; putative ankyrin-related protein and cystic fibrosis transmembrane conductance regulator (CFTR) genes, section 1 of 2 of the complete cds; and unknown gene |
| | | | | | | NT | Homo sapiens putative BPES syndrome breakpoint region protein gene, complete cds |
| | | | | | | NT | q86a04.x1 Scores_fetal_liver_spleen_INFLS_S1 Homo sapiens cDNA clone IMAGE:1849614 3' similar to gb:M19503 LINE-1 REVERSE TRANSCRIPTASE HOMOLOG (HUMAN);contains MER10.11 MER10 |
| | | | | | | EST_HUMAN | repetitive element ; |
| | | | | | | EST_HUMAN | q86a04.x1 Scores_fetal_liver_spleen_INFLS_S1 Homo sapiens cDNA clone IMAGE:1849614 3' similar to gb:M19503 LINE-1 REVERSE TRANSCRIPTASE HOMOLOG (HUMAN);contains MER10.11 MER10 |
| | | | | | | EST_HUMAN | repetitive element ; |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| | | | | | | | Human germline T-cell receptor beta chain Dopamine-beta-hydroxylase-like, TRY1, TRY2, TRY3, TCRBV27S1P, TCRBV22S1A2N1T, TCRBV9S1A1T, TCRBV7S1A1N2T, TCRBV6S1A1T, TCRBV13S3, TCRBV6S7P, TCRBV7S3A2T, TCRBV13S2A1T, TCRBV9S2A2PT, TCRBV7S2A1N4T, TCRBV13S9/13S> |
| 8686 | 21766 | 35298 | 0.59 | 1.0E-12 | U68059.1 | NT | ac26d05.s1 Stragene ovary (#937217) Homo sapiens cDNA clone IMAGE:857577 3' |
| 8802 | 21881 | 35521 | 1.25 | 1.0E-12 | AA782323.1 | EST_HUMAN | EST374237 MAGE resequences, MAGG Homo sapiens cDNA |
| 12115 | 25169 | 38835 | 2.32 | 1.0E-12 | AW662184.1 | EST_HUMAN | w33h08.x1 NCI_CGAP_Co18 Homo sapiens cDNA clone IMAGE:2392085 3' |
| 12437 | 28310 | | 1.54 | 1.0E-12 | A1738592.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C088 |
| 12600 | 28068 | | 1.83 | 1.0E-12 | AL163268.2 | NT | PROBABLE TONG-DEPENDENT RECEPTOR HI0712 PRECURSOR |
| 12788 | 26166 | | 1.19 | 1.0E-12 | P44836 | SWISSPROT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 12951 | 25691 | | 2.82 | 1.0E-12 | AF224689.1 | NT | Homo sapiens CST gene for ceramidase sulfoltransferase, exon 1, 2, 3, 4, 5 |
| 4058 | 17212 | 30223 | 1.21 | 9.0E-13 | AB028900.1 | NT | z26b06.s1 Soares fetal liver opkon 1NLS Homo sapiens cDNA clone IMAGE:203651 3' |
| 9801 | 22841 | | 2.81 | 9.0E-13 | N89653.1 | EST_HUMAN | Homo sapiens prion protein (PrP) gene, complete cds |
| 735 | 13917 | 26957 | 5.03 | 8.0E-13 | U29185.1 | NT | Homo sapiens prion protein (PrP) gene, complete cds |
| 735 | 13917 | 26958 | 5.03 | 8.0E-13 | U29185.1 | NT | Homo sapiens prion protein (PrP) gene, complete cds |
| 1885 | 15029 | 28136 | 2.73 | 8.0E-13 | U80017.1 | NT | Homo sapiens basic transcription factor 2 p44 (btf2p44) gene, partial cds, neuronal apoptosis inhibitory protein (nabp) and survival motor neuron protein (smn) genes, complete cds |
| 8303 | 21385 | 34908 | 0.63 | 8.0E-13 | A1894398.1 | EST_HUMAN | wm31h09.x1 NCI_CGAP_U04 Homo sapiens cDNA clone IMAGE:2437601 3' |
| 8303 | 21385 | 34907 | 0.63 | 8.0E-13 | A1884398.1 | EST_HUMAN | wm31h09.x1 NCI_CGAP_U04 Homo sapiens cDNA clone IMAGE:2437601 3' |
| 10360 | 23385 | | 2.82 | 8.0E-13 | U78027.1 | NT | Homo sapiens Bruton's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44L) and FTP3 (FTP3) genes, complete cds |
| 8429 | 21510 | | 0.77 | 7.0E-13 | Q65155 | SWISSPROT | OLFACTORY RECEPTOR-LIKE PROTEIN OLF2 |
| 12713 | 25474 | | 32 | 7.0E-13 | BE778223.1 | EST_HUMAN | 601463285f1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3868613 5' |
| | | | | | | | POLYPEPTIDE N-ACETYL GALACTOSAMINYLTRANSFERASE (PROTEIN-UDP ACETYL GALACTOSAMINYLTRANSFERASE) (UDP-GALNAC:POLYPEPTIDE, N- ACETYL GALACTOSAMINYLTRANSFERASE) (GALNAC-T1) |
| 12976 | 28635 | | 1.53 | 7.0E-13 | Q10473 | SWISSPROT | Homo sapiens chromosome 21 segment HS21C007 |
| 2168 | 16303 | 28430 | 5.85 | 6.0E-13 | AL163207.2 | NT | gq44a09.x1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1911352 3' |
| 6239 | 18367 | 31329 | 0.93 | 6.0E-13 | A1267928.1 | EST_HUMAN | y82f04.1f Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:145759 5' |
| 3399 | 16569 | | 1.15 | 5.0E-13 | R78338.1 | EST_HUMAN | z177a12.s1 Soares_fetus_NHT Homo sapiens cDNA clone IMAGE:728360 3' similar to contains Alu repetitive element/contains element MER22 repetitive element; |
| 3484 | 16652 | | 1.56 | 5.0E-13 | AA435773.1 | EST_HUMAN | GAP JUNCTION BETA-1 PROTEIN (CONNEXIN 30) (CX30) |
| 7016 | 20162 | 33572 | 0.99 | 5.0E-13 | P08983 | SWISSPROT | MYOSIN LIGHT CHAIN KINASE, SKELETAL MUSCLE (MLCK) |
| 11100 | 24173 | 37808 | 2.64 | 5.0E-13 | P07313 | SWISSPROT | PN2-H10224-221099-001-e11 H10224 Homo sapiens cDNA |
| 1816 | 15059 | | 4.88 | 4.0E-13 | AW378614.1 | EST_HUMAN | |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 2531 | 15658 | | 1.61 | 4.0E-13 | AF003529.1 | NT | Homo sapiens glypican 3 (GPC3) gene, partial cds and flanking repeat regions |
| 4869 | 18002 | | 1.08 | 4.0E-13 | AA454054.1 | EST_HUMAN | zxc48d07.r1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:785489 5' |
| 5704 | 18897 | 32189 | 4.47 | 4.0E-13 | BE169131.1 | EST_HUMAN | PM3-HT0520-230200-002-c08 HT0520 Homo sapiens cDNA |
| 7355 | 20434 | 33896 | 1.09 | 4.0E-13 | AB037750.1 | NT | Homo sapiens mRNA for KIAA1329 protein, partial cds |
| 7788 | 20844 | 34337 | 1.08 | 4.0E-13 | AA431529.1 | EST_HUMAN | zxc78g12.r1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:782182 5' similar to TR:G452763 |
| 7898 | 20950 | | 2.62 | 4.0E-13 | N44291.1 | EST_HUMAN | Y93g05.r1 Soares melanocyte 2N6HM Homo sapiens cDNA clone IMAGE:273080 5' similar to PIR:A32895 |
| 9042 | 22121 | 35683 | 1.38 | 4.0E-13 | AL043810.1 | EST_HUMAN | A32985 t complex sterility protein - mouse |
| 9702 | 22751 | 36321 | 0.47 | 4.0E-13 | AA076907.1 | EST_HUMAN | DKFZp343A0128_r1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp343A0128 5' |
| 10226 | 23262 | 36850 | 4.44 | 4.0E-13 | AI289831.1 | EST_HUMAN | 7B04H11 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA clone 7B04H11 |
| 11439 | 24500 | 38167 | 1.54 | 4.0E-13 | AA435819.1 | EST_HUMAN | q32d05.x1 NCI_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1899945 3' similar to contains Alu |
| 11439 | 24600 | 38168 | 1.54 | 4.0E-13 | AA435819.1 | EST_HUMAN | repetitive element |
| 184 | 13409 | | 4.35 | 3.0E-13 | AF003528.1 | NT | zxc78g10.s1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:728514 3' |
| 888 | 14084 | | 1.81 | 3.0E-13 | AA430310.1 | EST_HUMAN | zxc78g10.s1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:728514 3' |
| 1502 | 14655 | 27737 | 0.86 | 3.0E-13 | AI804151.1 | EST_HUMAN | GM-BT043-050299-076 BT043 Homo sapiens cDNA |
| 2443 | 15571 | 28700 | 1.53 | 3.0E-13 | AJ271738.1 | NT | Homo sapiens Xq pseudautosomal region; segment 2/2 |
| 2648 | 16673 | | 2.28 | 3.0E-13 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 2728 | 15547 | 28857 | 3.69 | 3.0E-13 | BF372982.1 | EST_HUMAN | GM3-FT0100-140700-242-h08 FT0100 Homo sapiens cDNA |
| 3266 | 16430 | | 2.44 | 3.0E-13 | AA745844.1 | EST_HUMAN | cb18402.s1 NCI_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1324035 3' |
| 3562 | 18756 | 29771 | 9.73 | 3.0E-13 | P18816 | SWISSPROT | DNA-DIRECTED RNA POLYMERASE II LARGEST SUBUNIT (VERSION 1) |
| 3592 | 18756 | 29772 | 9.73 | 3.0E-13 | P18816 | SWISSPROT | DNA-DIRECTED RNA POLYMERASE II LARGEST SUBUNIT (VERSION 1) |
| 5657 | 18851 | 32133 | 0.68 | 3.0E-13 | AA134017.1 | EST_HUMAN | zxc88h10.r1 Stralagene lung carcinoma 937218 Homo sapiens cDNA clone IMAGE:565316 5' similar to contains THR12 THR repetitive element |
| 5657 | 18851 | 32134 | 0.68 | 3.0E-13 | AA134017.1 | EST_HUMAN | zxc88h10.r1 Stralagene lung carcinoma 937218 Homo sapiens cDNA clone IMAGE:565316 5' similar to contains THR12 THR repetitive element |
| 6114 | 19204 | 32829 | 0.73 | 3.0E-13 | AW005639.1 | EST_HUMAN | wz88c02.x1 NCI_CGAP_Brr25 Homo sapiens cDNA clone IMAGE:2565890 3' similar to TR:O75139 |
| 8067 | 21149 | 34889 | 7.1 | 3.0E-13 | U52111.2 | NT | O75139 KIAA0644 PROTEIN ; Homo sapiens X28 region near ALD locus containing dual specificity phosphatase 8 (DUSP8), ribosomal protein L18a (RPL18a), Ca2+/Calmodulin-dependent protein kinase I (CAMKI), creatine transporter (CRT), GDM protein (GDM), adrenoleukodystrophy protein > |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 8268 | 21350 | 34865 | 0.5 | 3.0E-13 | AA352487.1 | EST_HUMAN | EST60487 Activated T-cells XX Homo sapiens cDNA 6' end similar to similar to serine protease P100, Ra-reactive factor |
| 8268 | 21350 | 34868 | 0.5 | 3.0E-13 | AA352487.1 | EST_HUMAN | EST60487 Activated T-cells XX Homo sapiens cDNA 6' end similar to similar to serine protease P100, Ra-reactive factor |
| 10401 | 23435 | 37043 | 0.58 | 3.0E-13 | AW935487.1 | EST_HUMAN | RC2-DT0007-110100-014-g10 DT0007 Homo sapiens cDNA |
| 10915 | 23508 | | 3.1 | 3.0E-13 | A064768.1 | EST_HUMAN | HA0536 Human fetal liver cDNA library Homo sapiens cDNA |
| 11301 | 24967 | 38008 | 3.41 | 3.0E-13 | BE063508.1 | EST_HUMAN | GM0-ET0281-031189-087-ct3 BT0281 Homo sapiens cDNA |
| 11888 | 24888 | 35885 | 1.62 | 3.0E-13 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 154 | 13379 | 28411 | 3.52 | 2.0E-13 | U52111.2 | NT | Homo sapiens X28 region near ALD locus containing dual specificity phosphatase 9 (DUSP9), ribosomal protein L18a (RPL18a), Ca2+/Calmodulin-dependent protein kinase I (CAMKI), creatine transporter (CRTR), CDM protein (CDM), adrenoleukodystrophy protein > |
| 249 | 13470 | 26502 | 2.06 | 2.0E-13 | U23839.1 | NT | Danio rerio fibroblast growth factor receptor 4 mRNA, complete cds |
| 1289 | 14455 | 27521 | 8.93 | 2.0E-13 | AF239710.1 | NT | Homo sapiens DNA polymerase delta small subunit (POLD2) gene, exons 1 through 11 and complete cds |
| 3070 | 16246 | 28286 | 0.61 | 2.0E-13 | 8824119 | NT | Homo sapiens hypothetical protein PRO2130 (PRO2130), mRNA |
| 3070 | 16246 | 28267 | 0.61 | 2.0E-13 | 8824119 | NT | Homo sapiens hypothetical protein PRO2130 (PRO2130), mRNA |
| 3596 | 16760 | 29778 | 1.68 | 2.0E-13 | AF109907.1 | NT | Homo sapiens S164 gene, partial cds; PS1 and hypothetical protein genes, complete cds; and S171 gene, partial cds |
| 4224 | 17372 | | 2.07 | 2.0E-13 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 6250 | 18424 | 32770 | 4.34 | 2.0E-13 | Q06852 | SWISSPROT | CELL SURFACE GLYCOPROTEIN 1 PRECURSOR (OUTER LAYER PROTEIN B) (S-LAYER PROTEIN 1) |
| 6335 | 19006 | | 0.58 | 2.0E-13 | X78417.1 | NT | S. cerevisiae rps12 mRNA for ribosomal protein S12 |
| 6954 | 20267 | 33704 | 5.73 | 2.0E-13 | X16912.1 | NT | Human PKL gene for liver-type 6-phosphofructokinase (EC 2.7.1.11) exon 2 |
| 7189 | 20064 | 33474 | 0.6 | 2.0E-13 | 10835072 | NT | Homo sapiens N-myristoyltransferase 1 (NMT1), mRNA |
| 7189 | 20064 | 33475 | 0.6 | 2.0E-13 | 10835072 | NT | Homo sapiens N-myristoyltransferase 1 (NMT1), mRNA |
| 10875 | 23709 | 37317 | 2.41 | 2.0E-13 | AW692155.1 | EST_HUMAN | Homo sapiens mab-21 (C. elegans)-like 1 (MAB21L1) mRNA |
| 12388 | 25274 | | 22.49 | 2.0E-13 | S74129.1 | NT | GM0-NN0001-100300-274-e11, NN0001 Homo sapiens cDNA |
| 302 | 13518 | 26551 | 1.34 | 1.0E-13 | S74129.1 | NT | FGF-1 fibroblast growth factor 1 [human, kidney, Genomic, 342 nt, segment 2 of 2] |
| 911 | 14088 | 27151 | 5.53 | 1.0E-13 | AJ007973.1 | NT | Homo sapiens LGMD2B gene |
| 1387 | 14521 | 27586 | 1.4 | 1.0E-13 | X87344.1 | NT | H. sapiens DMA, DMB, HLA-Z1, IIP2, LMP2, TAP1, LMP7, TAP2, DOB, DOB2 and RING8, 9, 13 and 14 genes |
| 2078 | 15219 | 28339 | 2.81 | 1.0E-13 | AA720574.1 | EST_HUMAN | hw21g02.a1 NC1_CGAP_G080 Homo sapiens cDNA clone IMAGE:1241138 3' similar to contains THR13 THR repetitive element: |
| 4715 | 17650 | 30833 | 1.32 | 1.0E-13 | BF340987.1 | EST_HUMAN | 602038008F1 NC1_CGAP_Bm64 Homo sapiens cDNA clone IMAGE:4185868 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 8094 | 21176 | 34691 | 0.97 | 1.0E-13 | AA577812.1 | EST_HUMAN | nn24c01.s1 NCL_CGAP_Gas1 Homo sapiens cDNA clone IMAGE:1084801 3' similar to contains Alu repetitive element; contains element MER24 repetitive element; |
| 8094 | 21176 | 34692 | 0.97 | 1.0E-13 | AA577812.1 | EST_HUMAN | nn24c01.s1 NCL_CGAP_Gas1 Homo sapiens cDNA clone IMAGE:1084801 3' similar to contains Alu repetitive element; contains element MER24 repetitive element; |
| 10296 | 23330 | | 1.04 | 1.0E-13 | O15481 | SWISSPROT | MELANOMA-ASSOCIATED ANTIGEN B4 (IMAGE-B4 ANTIGEN) |
| 10508 | 23543 | 37154 | 0.6 | 1.0E-13 | AF300701.1 | NT | Mus musculus osteoblastic protein tyrosine phosphatase mRNA, complete cds |
| 11861 | 24740 | 38431 | 8.74 | 1.0E-13 | BF108755.1 | EST_HUMAN | 745e10.x1 Scores_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3524443 3' similar to contains MER28.b2 MER29 repetitive element; |
| 12206 | 25160 | | 1.38 | 1.0E-13 | AV715377.1 | EST_HUMAN | AV715377 DGB Homo sapiens cDNA clone DGBAIE03 5' |
| 12920 | 25603 | | 3.46 | 1.0E-13 | AJ271735.1 | NT | Homo sapiens Xq pseudautosomal region, segment 1/2 |
| 13077 | 25706 | | 1.85 | 1.0E-13 | X87579.1 | NT | H. sapiens GD4 gene |
| 343 | 13554 | 26583 | 3.78 | 9.0E-14 | AA781159.1 | EST_HUMAN | aj24c01.s1 Scores_testis_NHT Homo sapiens cDNA clone 1391232 3' similar to contains MER19.11 MER19 repetitive element; |
| 344 | 13555 | 26584 | 1.84 | 9.0E-14 | AA781159.1 | EST_HUMAN | aj24c01.s1 Scores_testis_NHT Homo sapiens cDNA clone 1391232 3' similar to contains MER19.11 MER19 repetitive element; |
| 2569 | 15594 | | 4.13 | 9.0E-14 | AW861577.1 | EST_HUMAN | RCA-CT0322-080100-013-d09 CT0322 Homo sapiens cDNA |
| 2811 | 15925 | 28038 | 7.9 | 9.0E-14 | AB038162.1 | NT | Homo sapiens TFF gene cluster for trefoil factor, complete cds |
| 3180 | 16355 | 28360 | 7.5 | 9.0E-14 | AW513296.1 | EST_HUMAN | xs64f06.x1 NCL_CGAP_U11 Homo sapiens cDNA clone IMAGE:2707833 3' |
| 3310 | 13554 | 26583 | 1 | 9.0E-14 | AA781159.1 | EST_HUMAN | aj24c01.s1 Scores_testis_NHT Homo sapiens cDNA clone 1391232 3' similar to contains MER19.11 MER19 repetitive element; |
| 3898 | 17057 | 30057 | 7.37 | 9.0E-14 | D14547.1 | NT | Human DNA, SINE repetitive element |
| 4879 | 18010 | 30984 | 2.23 | 9.0E-14 | AJ002153.1 | NT | Saguinus oedipus gene for seminal vesicle secreted protein semenogelin I |
| 3587 | 16751 | | 1.17 | 8.0E-14 | BE468263.1 | EST_HUMAN | hz71c08.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3213424 3' |
| 4068 | 17222 | | 3.64 | 8.0E-14 | R76269.1 | EST_HUMAN | y72e03.r1 Scores placenta Nb2HP Homo sapiens cDNA clone IMAGE:144798 3' |
| 9647 | 21090 | 34605 | 38.93 | 8.0E-14 | X89211.1 | NT | H. sapiens DNA for endogenous retroviral like element |
| 9700 | 22898 | 36268 | 3.22 | 8.0E-14 | AA219316.1 | EST_HUMAN | za17c10.s1 Stragena fetal retina 937202 Homo sapiens cDNA clone IMAGE:628970 3' |
| 11717 | 24767 | | 1.79 | 8.0E-14 | BE082988.1 | EST_HUMAN | QV2-BT0258-281099-014-e01 BT0258 Homo sapiens cDNA |
| 12611 | 25410 | 32048 | 2.43 | 8.0E-14 | A1898118.1 | EST_HUMAN | wc82h08.x1 NCL_CGAP_C63 Homo sapiens cDNA clone IMAGE:2326143 3' |
| 1658 | 16044 | | 4.78 | 7.0E-14 | AW151673.1 | EST_HUMAN | x07e10.x1 NCL_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2623148 3' similar to contains MER10.12 MER10 repetitive element; |
| 9120 | 22189 | | 0.73 | 7.0E-14 | AL183285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 378 | 13598 | 26620 | 12.43 | 6.0E-14 | AF020503.1 | NT | Homo sapiens FRA3B common fragile region, diadenosine triphosphate hydrolase (FHT) gene, exon 5 |

Table 4
Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 10027 | 23065 | 35682 | 2.19 | 6.0E-14 | AF020503.1 | NT | Homo sapiens FRA3B common fragile region, diadenosine triphosphate hydrolase (FHIT) gene, exon 5 |
| 10027 | 23065 | 35683 | 2.19 | 6.0E-14 | AF020503.1 | NT | Homo sapiens FRA3B common fragile region, diadenosine triphosphate hydrolase (FHIT) gene, exon 5 |
| 633 | 13518 | 26842 | 4.17 | 5.0E-14 | Q63120 | SWISSPROT | CANALICULAR MULTISPECIFIC ORGANIC ANION TRANSPORTER 1 (MULTIDRUG RESISTANCE-ASSOCIATED PROTEIN 2) (CANALICULAR MULTIDRUG RESISTANCE PROTEIN) |
| 5166 | 18288 | 31264 | 1.32 | 5.0E-14 | AW073781.1 | EST_HUMAN | xb03b05.x1 NCL_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2676185 3' similar to contains L1.12 L1 repetitive element; |
| 5550 | 18944 | 32125 | 5.26 | 5.0E-14 | P08547 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 1147 | 16030 | | 1.61 | 4.0E-14 | P04928 | SWISSPROT | S-ANTIGEN PROTEIN PRECURSOR |
| 1926 | 15069 | 28174 | 10.15 | 4.0E-14 | AJ007973.1 | NT | Homo sapiens LGMD2B gene |
| 3847 | 17007 | | 0.73 | 4.0E-14 | AA046502.1 | EST_HUMAN | zik67a06.r1 Scores_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:487658 5' |
| 4407 | 17549 | 30533 | 1.04 | 4.0E-14 | N46328.1 | EST_HUMAN | y75c12.s1 Scores_multiple_sclerosis_2NbHISP Homo sapiens cDNA clone IMAGE:279180 3' similar to contains L1.13 L1 repetitive element; |
| 8145 | 21227 | | 0.71 | 4.0E-14 | X87344.1 | NT | H. sapiens DMA, DMB, HLA-Z1, IIP2, LMP2, TAP1, LMP7, TAP2, DOB, DQB2 and RING8, 9, 13 and 14 genes |
| 12043 | 25024 | 38729 | 5.5 | 4.0E-14 | BE242486.1 | EST_HUMAN | TCAAP1D1470 Pediatric acute myelogenous leukemia cell (FAB M1) Baylor-HGSC project=TCAA Homo sapiens cDNA clone TCAAP1470 |
| 12986 | 26203 | | 5.89 | 4.0E-14 | AI886224.1 | EST_HUMAN | wm08c03.x1 NCL_CGAP_UK4 Homo sapiens cDNA clone IMAGE:2435332 3' similar to contains Alu repetitive element; |
| 972 | 14145 | 27204 | 1.58 | 3.0E-14 | X85486.1 | NT | R. norvegicus mRNA for CP62 protein |
| 6873 | 20025 | 33434 | 0.93 | 3.0E-14 | A1420786.1 | EST_HUMAN | te91c12.x1 NCL_CGAP_P728 Homo sapiens cDNA clone IMAGE:2094070 3' similar to TR:O00519 O00519 |
| 6873 | 20025 | 33435 | 0.93 | 3.0E-14 | A1420786.1 | EST_HUMAN | FATTY ACID AMIDE HYDROLASE. ; |
| 7173 | 20308 | 33749 | 0.6 | 3.0E-14 | AA386311.1 | EST_HUMAN | FATTY ACID AMIDE HYDROLASE. ; |
| 8987 | 22066 | 35606 | 0.86 | 3.0E-14 | N42165.1 | EST_HUMAN | FATTY ACID AMIDE HYDROLASE. ; |
| 11512 | 18495 | 31533 | 5.87 | 3.0E-14 | AW263054.1 | EST_HUMAN | EST185054 Brain IV Homo sapiens cDNA |
| 12894 | 26041 | | 1.88 | 3.0E-14 | AL163285.2 | NT | y07b10.r1 Scores_melanocyte_2NbHM Homo sapiens cDNA clone IMAGE:270523 5' |
| 13212 | 25894 | 31853 | 1.51 | 3.0E-14 | BE891650.1 | EST_HUMAN | xp45f12.x1 NCL_CGAP_HN11 Homo sapiens cDNA clone IMAGE:2749343 3' similar to contains Alu repetitive element; contains element MER9 repetitive element; |
| 401 | 13598 | 26834 | 2.33 | 2.0E-14 | AJ271736.1 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 401 | 13598 | 26835 | 2.33 | 2.0E-14 | AJ271736.1 | NT | 601435233F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3920169 5' |
| 708 | 16019 | 26925 | 11.36 | 2.0E-14 | AL163303.2 | NT | Homo sapiens Xq pseudautosomal region; segment 2/2 |
| | | | | | | | Homo sapiens chromosome 21 segment HS21C103 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 2461 | 15589 | | 1.04 | 2.0E-14 | AW372888.1 | EST_HUMAN | RC5-BT0377-091289-031-D12 BT0377 Homo sapiens cDNA |
| 2535 | 15660 | | 0.89 | 2.0E-14 | 7657529 | NT | Homo sapiens rhaboid tumor deletion region protein 1 (RTDR1), mRNA |
| 2563 | 15718 | 28835 | 1.63 | 2.0E-14 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 5641 | 18835 | 31812 | 0.97 | 2.0E-14 | BF380661.1 | EST_HUMAN | IL2-UT0072-240800-142-D07 UT0072 Homo sapiens cDNA |
| 5738 | 18931 | 32229 | 1.03 | 2.0E-14 | AI912351.1 | EST_HUMAN | ta78h01.x2 NCI_CGAP_HSC2 Homo sapiens cDNA clone IMAGE:2050225 3' similar to contains L1.13 L1 repetitive element |
| 5838 | 19028 | 32334 | 3 | 2.0E-14 | U01317.1 | NT | Human beta globin region on chromosome 11 |
| 7023 | 20169 | | 1.04 | 2.0E-14 | BE000550.1 | EST_HUMAN | RC3-BN0072-240200-011-a08 BN0072 Homo sapiens cDNA |
| 7437 | 20514 | 33987 | 1.06 | 2.0E-14 | P56163 | SWISSPROT | ZINC-FINGER PROTEIN NEURO-D4 |
| 7678 | 20741 | 34221 | 24.46 | 2.0E-14 | BE158761.1 | EST_HUMAN | IL2-HT0397-071289-024-D04 HT0397 Homo sapiens cDNA |
| 7678 | 20741 | 34222 | 24.46 | 2.0E-14 | BE158761.1 | EST_HUMAN | IL2-HT0397-071289-024-D04 HT0397 Homo sapiens cDNA |
| 10121 | 23159 | 30708 | 0.56 | 2.0E-14 | AI978795.1 | EST_HUMAN | wf58g10.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2482034 3' similar to contains Alu repetitive element |
| 10630 | 23664 | 37273 | 0.51 | 2.0E-14 | AV741648.1 | EST_HUMAN | AV741648 CB Homo sapiens cDNA clone CBFBFB04 6' |
| 11018 | 24098 | 37736 | 3.62 | 2.0E-14 | AW139800.1 | EST_HUMAN | UI-H-B1-adv-4-10-0-JL s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2718234 3' |
| 12890 | 26045 | | 2.5 | 2.0E-14 | AF008191.1 | NT | Homo sapiens putative G6 protein (GR6) gene, complete cds |
| 13163 | 16860 | | 1.26 | 2.0E-14 | 7657529 | NT | Homo sapiens rhaboid tumor deletion region protein 1 (RTDR1), mRNA |
| 1092 | 14257 | 27313 | 2.32 | 1.0E-14 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 1438 | 14591 | 27684 | 7.01 | 1.0E-14 | AL163268.2 | NT | Homo sapiens chromosome 21 segment HS21C068 |
| 1438 | 14591 | 27665 | 7.01 | 1.0E-14 | AL163268.2 | NT | Homo sapiens chromosome 21 segment HS21C069 |
| 2057 | 15168 | 28312 | 8.9 | 1.0E-14 | L44140.1 | NT | Homo sapiens chromosome X region from filamin (FLN) gene to glucose-6-phosphate dehydrogenase (G6PD) gene, complete cds |
| 2258 | 15381 | 28517 | 6.33 | 1.0E-14 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 2480 | 15607 | 28731 | 6.44 | 1.0E-14 | AF001689.1 | NT | Homo sapiens ribosomal protein L23A (RPL23A) gene, complete cds |
| 3010 | 16166 | 29210 | 1.41 | 1.0E-14 | P05227 | SWISSPROT | HISTIDINE-RICH PROTEIN PRECURSOR (CLONE PHRP-II) |
| 3236 | 16410 | 29424 | 3.14 | 1.0E-14 | BF335227.1 | EST_HUMAN | RC2-CT0432-310700-013-a09_1 CT0432 Homo sapiens cDNA |
| 3236 | 16410 | 29425 | 3.14 | 1.0E-14 | BF335227.1 | EST_HUMAN | RC2-CT0432-310700-013-a09_1 CT0432 Homo sapiens cDNA |
| 3982 | 17149 | 30155 | 1.69 | 1.0E-14 | AA682994.1 | EST_HUMAN | ae68c12 s1 Stratiens schizo brain S11 Homo sapiens cDNA clone IMAGE:971350 3' |
| 4596 | 17733 | 30713 | 2.01 | 1.0E-14 | AW276652.1 | EST_HUMAN | xq38h10.x1 NCI_CGAP_Luz8 Homo sapiens cDNA clone IMAGE:2753059 3' |
| 5930 | 19116 | 32429 | 1.98 | 1.0E-14 | AF126145.1 | NT | Bos taurus xenobiotic/medium-chain fatty acid:CoA ligase form XL-III mRNA, nuclear mRNA encoding mitochondrial protein, complete cds |
| 6813 | 25834 | 33371 | 10.9 | 1.0E-14 | 11437150 | NT | Homo sapiens promilin (mouse)-like 1 (PROML1), mRNA |
| 6813 | 25834 | 33372 | 10.9 | 1.0E-14 | 11437150 | NT | Homo sapiens promilin (mouse)-like 1 (PROML1), mRNA |
| 1607 | 14760 | 27838 | 1.81 | 9.0E-15 | 7427622 | NT | Homo sapiens protein tyrosine phosphatase, receptor type, T (PTPRT), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 2242 | 16376 | | 1.38 | 9.0E-15 | AF198779.1 | NT | Homo sapiens transcription factor IGH enhancer 3, JM11 protein, JM4 protein, JM5 protein, T54 protein, JM10 protein, A4 differentiation-dependent protein, triple LIM domain protein 6, and synaptophysin genes, complete cds; and L-type calcium channel, alpha |
| 7866 | 20732 | 34207 | 4.24 | 9.0E-15 | P21410 | SWISSPROT | GAG POLYPROTEIN [CONTAINS: CORE PROTEINS P16, P12, P30, P10] |
| 8206 | 21288 | 34810 | 1.24 | 9.0E-15 | BE5903559.1 | EST_HUMAN | 601677750F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3980150 5' |
| 13099 | 25716 | | 2.87 | 9.0E-15 | AL183247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 2872 | 13687 | | 1.53 | 8.0E-15 | BE261482.1 | EST_HUMAN | 601148632F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3164023 5' |
| 7331 | 20412 | 33874 | 1.13 | 7.0E-15 | BF036327.1 | EST_HUMAN | 601458531F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3892089 5' |
| 10650 | 23084 | | 2.34 | 7.0E-15 | AW241659.1 | EST_HUMAN | nm774002.x1 Soares_NFL_I_GBC_S1 Homo sapiens cDNA clone IMAGE:2700483 3' similar to contains THR12 THR repetitive element; |
| 12270 | 25203 | | 1.44 | 7.0E-15 | AA284485.1 | EST_HUMAN | zs57408.11 NCL_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:701583 5' similar to gbl.21834 STEROL O-ACYLTRANSFERASE (HUMAN); contains L1, L1 repetitive element; |
| 1018 | 14189 | 27250 | 7.51 | 6.0E-15 | AJ271736.1 | NT | Homo sapiens Xq pseudautosomal region; segment 2/2 |
| 5263 | 18382 | | 0.98 | 6.0E-15 | AW901259.1 | EST_HUMAN | CM4-NN1011-100300-110-310 NN1011 Homo sapiens cDNA |
| 6041 | 19224 | 32546 | 1.02 | 6.0E-15 | X73462.1 | NT | O. aries mRNA for hair keratin cysteine-rich protein |
| 6041 | 19224 | 32547 | 1.02 | 6.0E-15 | X73462.1 | NT | O. aries mRNA for hair keratin cysteine-rich protein |
| 11583 | 26231 | | 1.54 | 6.0E-15 | AW638843.1 | EST_HUMAN | QV1-L10036-150200-070-c10 L10036 Homo sapiens cDNA |
| 423 | 13618 | 26658 | 3.57 | 5.0E-15 | AL183208.2 | NT | Homo sapiens chromosome 21 segment HS21C008 |
| 2819 | 15933 | 29044 | 1.76 | 5.0E-15 | U91328.1 | NT | Human hereditary haemochromatosis region, histone 2A-like protein gene, hereditary haemochromatosis (H1A-H1) gene, FeRet gene, and sodium phosphate transporter (NPT3) gene, complete cds |
| 5233 | 18355 | | 0.91 | 5.0E-15 | P41369 | SWISSPROT | RETROVIRUS-RELATED POL POLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE ; |
| 440 | 13240 | 26240 | 2.33 | 4.0E-15 | AL163303.2 | NT | ENDONUCLEASE] |
| 6804 | 19959 | 33359 | 0.9 | 4.0E-15 | AB007970.1 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 11316 | 21065 | 34577 | 2.11 | 4.0E-15 | AJ130894.1 | NT | Homo sapiens mRNA, chromosome 1 specific transcript KIAA0501 |
| 11316 | 21065 | 34578 | 2.11 | 4.0E-15 | AJ130894.1 | NT | Homo sapiens mRNA for transcription factor |
| 4333 | 17476 | | 7.67 | 3.0E-15 | N89452.1 | EST_HUMAN | Homo sapiens mRNA for transcription factor |
| 5141 | 18264 | 31232 | 0.67 | 3.0E-15 | AA078097.1 | EST_HUMAN | LY1142F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone LY1142 5' similar to ANF(CARDIODILATIN) |
| 5141 | 18264 | 31233 | 0.67 | 3.0E-15 | AA078097.1 | EST_HUMAN | 7P01F03 Chromosome 7 Placental cDNA Library Homo sapiens cDNA clone 7P01F03 |
| 6953 | 20266 | | 1.11 | 3.0E-15 | Q94925 | SWISSPROT | 7P01F03 Chromosome 7 Placental cDNA Library Homo sapiens cDNA clone 7P01F03 |
| 7430 | 20507 | 33978 | 3.13 | 3.0E-15 | M27685.1 | NT | GLUTATHIONE PEROXIDASE RY2D1 PRECURSOR (ODORANT-METABOLIZING PROTEIN RY2D1) |
| 7430 | 20507 | 33979 | 3.13 | 3.0E-15 | M27685.1 | NT | Mus musculus ultra high sulfur keratin gene, complete cds |
| 7430 | 20507 | 33979 | 3.13 | 3.0E-15 | M27685.1 | NT | Mus musculus ultra high sulfur keratin gene, complete cds |

Page 238 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 10129 | 23167 | | 2.38 | 3.0E-15 | AA807128.1 | EST_HUMAN | cc36a07.s1 NCI_QGAP_GCB1 Homo sapiens cDNA clone IMAGE:1351764 3' similar to contains MER18.11 |
| 11033 | 24112 | 37748 | 8.11 | 3.0E-15 | AB026898.1 | NT | MER19 repetitive element; |
| 12820 | 26081 | | 65.8 | 3.0E-15 | AJ271735.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 280 | 13479 | 26511 | 3.71 | 2.0E-15 | AF223391.1 | NT | Homo sapiens Xq pseudautosomal region; segment 1/2 |
| 379 | 13587 | 26621 | 3.28 | 2.0E-15 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 379 | 13587 | 26622 | 3.28 | 2.0E-15 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 1959 | 14712 | | 0.99 | 2.0E-15 | 8923201 | NT | Homo sapiens hypothetical protein FLJ20212 (FLJ20212), mRNA |
| 3599 | 16763 | 29778 | 0.72 | 2.0E-15 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 3599 | 16763 | 29779 | 0.72 | 2.0E-15 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 4745 | 17690 | | 2.76 | 2.0E-15 | A1806335.1 | EST_HUMAN | w07006.x1 Scores_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2349923 3' similar to TR:Q61043 Q61043 NINEIN; |
| 6311 | 19483 | 32838 | 1.11 | 2.0E-15 | BE562352.1 | EST_HUMAN | 601344253F1 NIH_MGC_B Homo sapiens cDNA clone IMAGE:3877268 5' |
| 6311 | 19483 | 32839 | 1.11 | 2.0E-15 | BE562352.1 | EST_HUMAN | 601344253F1 NIH_MGC_B Homo sapiens cDNA clone IMAGE:3877268 5' |
| 7263 | 20346 | | 1.58 | 2.0E-15 | AJ400977.1 | NT | Homo sapiens ASCL3 gene, OEGP1 gene, C11orf14 gene, C11orf15 gene, C11orf16 gene and C11orf17 gene |
| 7421 | 20493 | 33969 | 2.73 | 2.0E-15 | AA704195.1 | EST_HUMAN | z177e03.s1 Scores_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:460924 3' |
| 7654 | 20628 | 34102 | 5.05 | 2.0E-15 | W05064.1 | EST_HUMAN | z177e03.s1 Scores_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:460924 3' |
| 9107 | 22186 | 35730 | 2.86 | 2.0E-15 | D14847.1 | NT | WP:F44F4.8 CE02227 TRANSPOSASE; |
| 9273 | 22349 | 35899 | 0.91 | 2.0E-15 | AA397758.1 | EST_HUMAN | Human DNA, SINE repetitive element |
| 9273 | 22349 | 35900 | 0.91 | 2.0E-15 | AA397758.1 | EST_HUMAN | z177g08.r1 Scores_testis_NHT Homo sapiens cDNA clone IMAGE:728414 5' |
| 9804 | 22659 | 36231 | 1.18 | 2.0E-15 | AW379465.1 | EST_HUMAN | z177g08.r1 Scores_testis_NHT Homo sapiens cDNA clone IMAGE:728414 5' |
| 9804 | 22659 | 36232 | 1.18 | 2.0E-15 | AW379465.1 | EST_HUMAN | OM0-HT0244-201099-078-a12 HT0244 Homo sapiens cDNA |
| 11077 | 24162 | | 3.69 | 2.0E-15 | AJ271735.1 | NT | OM0-HT0244-201099-078-a12 HT0244 Homo sapiens cDNA |
| 13016 | 16763 | 29778 | 3.89 | 2.0E-15 | AF223391.1 | NT | Homo sapiens Xq pseudautosomal region; segment 1/2 |
| | | | | | | | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 13016 | 16763 | 29779 | 3.89 | 2.0E-15 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 2894 | 15948 | | 3.09 | 1.0E-15 | A1689984.1 | EST_HUMAN | tx26105.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2270746 3' similar to TR-Q13639 Q13639 |
| 3071 | 16253 | 29275 | 1.42 | 1.0E-15 | BE043584.1 | EST_HUMAN | MARINER TRANSPOSASE ; |
| 3211 | 16386 | 29398 | 1.18 | 1.0E-15 | P08547 | SWISSPROT | htk10902.y1 NCL_CGAP_Ov34 Homo sapiens cDNA clone IMAGE:2999162 5' |
| 4479 | 17619 | 30601 | 0.61 | 1.0E-15 | BE182696.1 | EST_HUMAN | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 6502 | 19668 | 33032 | 1.72 | 1.0E-15 | T95763.1 | EST_HUMAN | RC3-HIT0649-100500-022-b05 HIT0649 Homo sapiens cDNA |
| 7149 | 20284 | | 1.98 | 1.0E-16 | BE074217.1 | EST_HUMAN | ye40e10.e1 Soares fetal liver spleen 1NLS Homo sapiens cDNA clone IMAGE:120234 3' similar to contains MER6 repetitive element ; |
| 7184 | 20049 | 33480 | 0.79 | 1.0E-15 | P39057 | SWISSPROT | QV3-BT0569-270100-074-g05 BT0569 Homo sapiens cDNA |
| 8427 | 21508 | 35040 | 0.99 | 1.0E-15 | AL163280.2 | NT | DYNEIN BETA CHAIN, CILIARY |
| 8616 | 21606 | 35232 | 4.04 | 1.0E-16 | A1200376.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C080 |
| 8616 | 21695 | 35233 | 4.94 | 1.0E-15 | A1200976.1 | EST_HUMAN | qf68106.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1765227 3' |
| 9239 | 22316 | 35858 | 0.78 | 1.0E-16 | AL163207.2 | NT | qf68106.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1765227 3' |
| 9242 | 22319 | 35862 | 0.68 | 1.0E-16 | 4607208 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 9448 | 22684 | 36127 | 0.99 | 1.0E-15 | Q39575 | SWISSPROT | Homo sapiens spermidine synthase (SRM) mRNA |
| 9892 | 22872 | 36455 | 0.94 | 1.0E-15 | AA864653.1 | EST_HUMAN | DYNEIN GAMMA CHAIN, FLAGELLAR OUTER ARM |
| 11057 | 24134 | 37770 | 3.04 | 1.0E-15 | AF044083.1 | NT | dy37c03.e1 NCL_CGAP_Kid8 Homo sapiens cDNA clone IMAGE:1469972 3' similar to contains L.1.13 L1 repetitive element ; |
| 13104 | 25992 | 31856 | 13.05 | 1.0E-15 | A1783944.1 | EST_HUMAN | Homo sapiens major histocompatibility locus class III region |
| 4826 | 17762 | 30744 | 0.93 | 9.0E-16 | 4503168 | NT | tt31c05.x1 NCL_CGAP_Ov23 Homo sapiens cDNA clone IMAGE:2219912 3' similar to contains Alu repetitive element |
| 11241 | 24310 | 37947 | 1.41 | 9.0E-16 | F08888.1 | EST_HUMAN | Homo sapiens cut (Drosophila)-like 1 (CCAA1 displacement protein) (CUTL1) mRNA |
| 11995 | 24680 | 38885 | 1.48 | 9.0E-16 | A1244341.1 | EST_HUMAN | HSC23F057 normalized infant brain cDNA Homo sapiens cDNA clone c-23105 |
| 11995 | 24680 | 38886 | 1.48 | 9.0E-16 | A1244341.1 | EST_HUMAN | q76d02.x1 NCL_CGAP_Kid8 Homo sapiens cDNA clone IMAGE:1865354 3' similar to contains MER10.13 |
| 5818 | 19009 | 32315 | 0.85 | 7.0E-16 | 4885120 | NT | MER10 repetitive element ; |
| 7496 | 20371 | 34043 | 1.3 | 7.0E-16 | Q88807 | SWISSPROT | q76d02.x1 NCL_CGAP_Kid8 Homo sapiens cDNA clone IMAGE:1865354 3' similar to contains MER10.13 |
| 7496 | 20371 | 34044 | 1.3 | 7.0E-16 | Q88807 | SWISSPROT | q76d02.x1 NCL_CGAP_Kid8 Homo sapiens cDNA clone IMAGE:1865354 3' similar to contains MER10.13 |
| 13043 | 25955 | | 38.08 | 7.0E-16 | T94149.1 | EST_HUMAN | Homo sapiens chemokine (C-C motif) receptor 8 (CCR8) mRNA |
| | | | | | | | MER10 repetitive element ; |
| | | | | | | | PROTEIN-ARGININE DEIMINASE TYPE IV (PEPTIDYLARGININE DEIMINASE IV) (PAD-R4) |
| | | | | | | | (PEPTIDYLARGININE DEIMINASE TYPE ALPHA) |
| | | | | | | | PROTEIN-ARGININE DEIMINASE TYPE IV (PEPTIDYLARGININE DEIMINASE IV) (PAD-R4) |
| | | | | | | | (PEPTIDYLARGININE DEIMINASE TYPE ALPHA) |
| | | | | | | | ye28c12.1 Striatogene lung (#837210) Homo sapiens cDNA clone IMAGE:118082 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 2208 | 15342 | | 9.12 | 6.0E-16 | AW972811.1 | EST_HUMAN | EST384702 IMAGE:resequences, MAGL Homo sapiens cDNA |
| 1522 | 14975 | 27757 | 0.96 | 5.0E-16 | AJ251154.1 | NT | Mus musculus olfactory receptor cluster, OR37A, OR37B, OR37C, OR37E genes and OR37D pseudogene olB0c04.s1 Soares, total, fetus_Nb21F8_Bw Homo sapiens cDNA clone IMAGE:1623078 3' similar to contains element L1 repetitive element; |
| 2745 | 15862 | 28973 | 2.21 | 5.0E-16 | AA992176.1 | EST_HUMAN | 601865734F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4104129 5' |
| 11809 | 24799 | 38498 | 2.68 | 5.0E-16 | BF217368.1 | EST_HUMAN | Homo sapiens GTP binding protein 1 (GTPBP1), mRNA |
| 13162 | 25749 | | 14.16 | 6.0E-16 | 11418127 | NT | Homo sapiens gene for TMEM1 and PWP2, complete and partial cds |
| 2312 | 15444 | | 1.01 | 4.0E-16 | AB001623.1 | NT | Homo sapiens cDNA clone IMAGE:4104129 5' |
| 2463 | 15581 | 28708 | 2.87 | 4.0E-16 | AW797168.1 | EST_HUMAN | QV1-UM0036-200300-115-002 UM0036 Homo sapiens cDNA |
| 2453 | 15581 | 28708 | 2.87 | 4.0E-16 | AW797168.1 | EST_HUMAN | QV1-UM0036-200300-115-002 UM0036 Homo sapiens cDNA |
| 3546 | 16711 | 29722 | 5.29 | 4.0E-16 | Q16653 | SWISSPROT | MYELIN-OLIGODENDROCYTE GLYCOPROTEIN PRECURSOR |
| 4260 | 17405 | 30391 | 8.68 | 4.0E-16 | BE083875.1 | EST_HUMAN | PM4-BT0850-010400-002-009 BT0850 Homo sapiens cDNA |
| 4200 | 17405 | 30392 | 8.68 | 4.0E-16 | BE083875.1 | EST_HUMAN | PM4-BT0850-010400-002-009 BT0850 Homo sapiens cDNA |
| 5237 | 18377 | 31343 | 0.91 | 4.0E-16 | P08548 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 7800 | 20942 | 34448 | 42.68 | 4.0E-16 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 9495 | 22552 | 36114 | 0.72 | 4.0E-16 | 11423191 | NT | Homo sapiens hypothetical protein FLJ10024 (FLJ10024), mRNA |
| 12283 | 25218 | | 1.95 | 4.0E-16 | P08548 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 12381 | 25270 | | 8.68 | 4.0E-16 | C05947.1 | EST_HUMAN | C05947 Human pancreatic islet Homo sapiens cDNA clone hbc5355 |
| 12392 | 25277 | 32078 | 3.23 | 4.0E-16 | 6912469 | NT | Homo sapiens Gb2-associated binder 2 (KIAA0571), mRNA |
| 12682 | 25494 | | 1.33 | 4.0E-16 | R18591.1 | EST_HUMAN | Y95b11.11 Soares Infant brain 1NIB Homo sapiens cDNA clone IMAGE:30489 6' |
| 135 | 13361 | 26395 | 1.09 | 3.0E-16 | AW022862.1 | EST_HUMAN | qf45c01.y1 Morton Fetal Cochlea Homo sapiens cDNA clone IMAGE:2486376 5' |
| 135 | 13361 | 26396 | 1.09 | 3.0E-16 | AW022862.1 | EST_HUMAN | qf45c01.y1 Morton Fetal Cochlea Homo sapiens cDNA clone IMAGE:2486376 5' |
| 478 | 13873 | | 1.66 | 3.0E-16 | AL046445.1 | EST_HUMAN | DKFZp434P037_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434P037 5' |
| 488 | 13992 | | 2.33 | 3.0E-16 | AF135445.1 | NT | Homo sapiens TSX (TSX) pseudogene, exon 5 |
| 1483 | 14636 | 27720 | 2.73 | 3.0E-16 | Q28983 | SWISSPROT | ZONADHESIN PRECURSOR |
| 3041 | 16217 | 29237 | 4.71 | 3.0E-16 | P03200 | SWISSPROT | ENVELOPE GLYCOPROTEIN GP340 (MEMBRANE ANTIGEN) (MA) [CONTAINS: GLYCOPROTEIN GP220] |
| 4711 | 17846 | 30830 | 0.59 | 3.0E-16 | AW160828.1 | EST_HUMAN | au76108.y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2782169 5' similar to SW/KID1_MOUSE Q81761 RENAL TRANSCRIPTION FACTOR KID-1; |
| 5057 | 18185 | 31160 | 1.32 | 3.0E-16 | AV661393.1 | EST_HUMAN | AV661393 GLC Homo sapiens cDNA clone GLCGSA01 3' |
| 5392 | 18594 | | 0.99 | 3.0E-16 | AA077225.1 | EST_HUMAN | 7B10F02 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA clone 7B10F02 |
| 5734 | 18927 | 32223 | 1.67 | 3.0E-16 | AF003529.1 | NT | Homo sapiens glypican 3 (GPC3) gene, partial cds and flanking repeat regions am88105.a1 Stratagene echizo brain S11 Homo sapiens cDNA clone IMAGE:1684185 3' similar to contains THR.b2 THR repetitive element; |
| 8858 | 21937 | 35473 | 4.25 | 3.0E-16 | AJ002836.1 | EST_HUMAN | |

Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 10094 | 23132 | | 1.09 | 3.0E-16 | BF680817.1 | EST_HUMAN | 602246538F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:4332032 5' |
| 10324 | 23359 | 36989 | 2.59 | 3.0E-16 | L78810.1 | NT | Homo sapiens ADP/ATP carrier protein (ANT-2) gene, complete cds |
| 13187 | 28171 | 31557 | 3.62 | 3.0E-16 | AL043268.2 | EST_HUMAN | DKFZp434L1623.1 434 (synonym: hta3) Homo sapiens cDNA clone DKFZp434L1623 5' |
| 904 | 14166 | | 1.03 | 2.0E-16 | AL163279.2 | NT | Homo sapiens chromosome 21 segment HS21C079 |
| 2459 | 16586 | | 0.96 | 2.0E-16 | AA621761.1 | EST_HUMAN | af082404.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1030855 3' |
| 2753 | 15670 | | 1.14 | 2.0E-16 | J03081.1 | NT | Human SSANV-related endogenous retroviral LTR-like element |
| 4284 | 17437 | 30424 | 1.62 | 2.0E-16 | X89211.1 | NT | H. sapiens DNA for endogenous retroviral like element |
| 4603 | 17740 | 30718 | 1.27 | 2.0E-16 | AI208733.1 | EST_HUMAN | cg56f03.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1839167 3' similar to contains MER28.13 |
| 5269 | 18416 | 31385 | 0.84 | 2.0E-16 | BE081178.1 | EST_HUMAN | MER29 repetitive element; |
| 6880 | 20032 | 33442 | 0.68 | 2.0E-16 | Q31125 | SWISSPROT | RC3-BT0048-131159-003-H12 BT0048 Homo sapiens cDNA |
| 7893 | 20945 | 34451 | 0.89 | 2.0E-16 | AI470723.1 | EST_HUMAN | HISTIDINE-RICH PROTEIN KE4 |
| 8154 | 21236 | 34757 | 1.67 | 2.0E-16 | AI732837.1 | EST_HUMAN | BT691.1.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2141708 3' similar to contains element |
| 8352 | 21433 | 34957 | 0.81 | 2.0E-16 | BE658026.1 | EST_HUMAN | MER33 repetitive element; |
| 8352 | 21433 | 34958 | 0.81 | 2.0E-16 | BE658028.1 | EST_HUMAN | nz47106.x5 NCI_CGAP_P12 Homo sapiens cDNA clone IMAGE:1230947 similar to TR:O54849 O54849 |
| 8724 | 21804 | 35340 | 0.78 | 2.0E-16 | AW877214.1 | EST_HUMAN | HYPOTHETICAL 42.9 KD PROTEIN. [2] TR:O8905; contains MER7.11 MER7 repetitive element; |
| 8724 | 21804 | 35341 | 0.78 | 2.0E-16 | AW877214.1 | EST_HUMAN | 782f09.x1 NCI_CGAP_P128 Homo sapiens cDNA clone IMAGE:3303521 3' |
| 189 | 13411 | 26438 | 2.28 | 1.0E-16 | AF200719.1 | NT | 782f09.x1 NCI_CGAP_P128 Homo sapiens cDNA clone IMAGE:3303521 3' |
| 383 | 13630 | | 22.93 | 1.0E-16 | AA628592.1 | EST_HUMAN | CM4-PT0034-180200-506-a01 PT0034 Homo sapiens cDNA |
| 2028 | 15169 | 28276 | 3.42 | 1.0E-16 | BF327942.1 | EST_HUMAN | CM4-PT0034-180200-506-a01 PT0034 Homo sapiens cDNA |
| 5839 | 18029 | 32335 | 0.6 | 1.0E-16 | AF169894.1 | NT | Homo sapiens pituitary tumor transforming gene protein (PTTG) gene, complete cds |
| 5655 | 19727 | | 18 | 1.0E-16 | U45983.1 | NT | af39g11.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1034084 3' similar to contains OFR.12 OFR repetitive element; |
| 6704 | 19882 | 33252 | 2.86 | 1.0E-16 | Q02779 | SWISSPROT | QV0-BN0148-070700-293-at10 BN0148 Homo sapiens cDNA |
| 7726 | 19727 | | 5.39 | 1.0E-16 | U45983.1 | NT | QV0-BN0148-070700-293-at10 BN0148 Homo sapiens cDNA |
| 9483 | 22540 | 36103 | 0.81 | 1.0E-16 | AW675651.1 | EST_HUMAN | Homo sapiens SNCA isoform (SNCA) gene, complete cds, alternatively spliced |
| 3832 | 16992 | 29954 | 2.08 | 9.0E-17 | AW900048.1 | EST_HUMAN | Homo sapiens CCR8 chemokine receptor (CMKBR8) gene, complete cds |
| 6884 | 20016 | | 2.15 | 9.0E-17 | AI392964.1 | EST_HUMAN | MITOGEN-ACTIVATED PROTEIN KINASE KINASE 10 (MIXED LINEAGE KINASE 2) (PROTEIN KINASE MST) |
| | | | | | | | KINASE MST) |
| | | | | | | | Homo sapiens CCR8 chemokine receptor (CMKBR8) gene, complete cds |
| | | | | | | | QV2-PT0012-040400-124-e05 PT0012 Homo sapiens cDNA |
| | | | | | | | CM1-NN1003-200300-163-a01 NN1003 Homo sapiens cDNA |
| | | | | | | | tg22c11.x1 NCI_CGAP_G111 Homo sapiens cDNA clone IMAGE:2108524 3' similar to contains MER28.12 |
| | | | | | | | MER28 repetitive element; |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8289 | 21381 | | 3.56 | 9.0E-17 | AW150257.1 | EST_HUMAN | x949g12.x1 NCL_CGAP_U11 Homo sapiens cDNA clone IMAGE:2630950 3' similar to contains OFR.12 OFR repetitive element; |
| 10428 | 23464 | | 2.35 | 9.0E-17 | AF200719.1 | NT | Homo sapiens pituitary tumor transforming gene protein (PTTG) gene, complete cds |
| 1043 | 14209 | | 2.43 | 8.0E-17 | AW880701.1 | EST_HUMAN | QV6-OT0032-080300-155-401 OT0032 Homo sapiens cDNA |
| 3998 | 17155 | | 0.78 | 8.0E-17 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 5701 | 25809 | 32187 | 4.09 | 8.0E-17 | BE172081.1 | EST_HUMAN | MR0-IT0559-080300-003-004 HT0559 Homo sapiens cDNA |
| 7426 | 20502 | | 1.73 | 8.0E-17 | AV730759.1 | EST_HUMAN | AV730759 HTF Homo sapiens cDNA clone HTFA0807 5' |
| 1487 | 14840 | | 2.58 | 7.0E-17 | 6753097 | NT | Mus musculus apolipoprotein B editing complex 2 (ApoBec2), mRNA |
| 5438 | 18638 | | 3.11 | 7.0E-17 | AF216850.1 | NT | Homo sapiens putative MTAP (MTAP) mRNA, partial cds, alternatively spliced |
| 6828 | 19879 | 33387 | 7.91 | 7.0E-17 | AF229843.1 | NT | Mus musculus WNT-2 gene, partial cds; putative ankyrin-related protein and cystic fibrosis transmembrane conductance regulator (CFTR) genes, section 1 of 2 of the complete cds; and unknown gene |
| 208 | 13431 | 26463 | 5.62 | 6.0E-17 | AW983980.1 | EST_HUMAN | FC1-HN0003-220300-021-504 HN0003 Homo sapiens cDNA |
| 6443 | 19510 | 32973 | 2.06 | 8.0E-17 | AW662772.1 | EST_HUMAN | h81d04.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2878695 3' similar to contains L1.12 L1 repetitive element; |
| 10499 | 23534 | 37144 | 0.54 | 8.0E-17 | P20138 | SWISSPROT | MYELOID CELL SURFACE ANTIGEN CD33 PRECURSOR (GP67) |
| 434 | 13234 | 26234 | 2.37 | 5.0E-17 | T64110.1 | EST_HUMAN | yc08h08.t1 Strabagene lung (#937210) Homo sapiens cDNA clone IMAGE:78839 5' |
| 7769 | 20818 | 34308 | 1.81 | 5.0E-17 | T81043.1 | EST_HUMAN | y428b04.t1 Soares_fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:108327 5' |
| 9502 | 22704 | 36270 | 1.32 | 4.0E-17 | AW129165.1 | EST_HUMAN | x20e04.x1 NCL_CGAP_Ki68 Homo sapiens cDNA clone IMAGE:2618622 3' similar to contains Alu repetitive element; contains MER19.b1 MER19 repetitive element; |
| 11763 | 24773 | 38469 | 2.51 | 4.0E-17 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 12308 | 26226 | | 1.82 | 4.0E-17 | AI073546.1 | EST_HUMAN | QV4504.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1640286 3' similar to TR.Q16930 |
| 2165 | 15300 | 28426 | 1.85 | 3.0E-17 | AW119123.1 | EST_HUMAN | Q16530 PMS3 MRNA ; contains MER10.12 MER10 repetitive element; |
| 3263 | 16437 | | 1.17 | 3.0E-17 | P35410 | SWISSPROT | xd89c09.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2604784 3' |
| 3732 | 16993 | 28997 | 1.91 | 3.0E-17 | BE326522.1 | EST_HUMAN | MAS-RELATED G PROTEIN-COUPLED RECEPTOR MRG |
| 3732 | 16993 | 28998 | 1.91 | 3.0E-17 | BE326522.1 | EST_HUMAN | hw05b04.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3181999 3' |
| 8463 | 21644 | 35074 | 1.12 | 3.0E-17 | N88451.1 | EST_HUMAN | hw05b04.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3181999 3' |
| 9903 | 22943 | 36328 | 5.19 | 3.0E-17 | AB026898.1 | NT | z14h02.s1 Soares_fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:292491 3' similar to contains PTR5.13 PTR5 repetitive element; |
| 10591 | 23626 | 37234 | 0.72 | 3.0E-17 | BF327012.1 | EST_HUMAN | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 10591 | 23626 | 37235 | 0.72 | 3.0E-17 | BF327012.1 | EST_HUMAN | QV3-BN0047-270700-283-a12 BN0047 Homo sapiens cDNA |
| 12268 | 25201 | | 4.2 | 3.0E-17 | 11417698 | NT | QV3-BN0047-270700-283-a12 BN0047 Homo sapiens cDNA |
| | | | | | | | Homo sapiens SEC14 (S. cerevisiae)-like 2 (SEC14L2), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 13165 | 25751 | | 1.23 | 3.0E-17 | AV720204.1 | EST_HUMAN | AV720204 GLC Homo sapiens cDNA clone GLCJIF08 5' |
| 363 | 13574 | 28605 | 2.85 | 2.0E-17 | AI270080.1 | EST_HUMAN | qt83a06.x1 NCJ_CGAP_Eso2 Homo sapiens cDNA clone IMAGE:1868922 3' similar to contains Alu repetitive element |
| 384 | 13674 | 28606 | 2.78 | 2.0E-17 | AI270080.1 | EST_HUMAN | qt83a06.x1 NCJ_CGAP_Eso2 Homo sapiens cDNA clone IMAGE:1868922 3' similar to contains Alu repetitive element |
| 1012 | 14184 | | 1.43 | 2.0E-17 | AA722832.1 | EST_HUMAN | z881d04.s1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:398751 3' |
| 2518 | 15644 | 28765 | 2.59 | 2.0E-17 | Q28983 | SWISSPROT | ZONADHESIN PRECURSOR |
| 2618 | 15644 | 28766 | 2.59 | 2.0E-17 | Q28983 | SWISSPROT | ZONADHESIN PRECURSOR |
| 2896 | 18172 | 28191 | 6.96 | 2.0E-17 | P12036 | SWISSPROT | NEUROFILAMENT TRIPLET H PROTEIN (200 KDA NEUROFILAMENT PROTEIN)(NEUROFILAMENT HEAVY POLYPEPTIDE)(NF-H) |
| 6482 | 18681 | 31696 | 1.75 | 2.0E-17 | M27685.1 | NT | Mus musculus ultra high sulfur keratin gene, complete cds |
| 5482 | 18681 | 31697 | 1.75 | 2.0E-17 | M27685.1 | NT | Mus musculus ultra high sulfur keratin gene, complete cds |
| 6394 | 19563 | | 1.92 | 2.0E-17 | AF030066.1 | NT | Homo sapiens MHC class 1 region |
| 6319 | 19779 | | 1.39 | 2.0E-17 | AL134881.1 | EST_HUMAN | DKFZp762J0610.1 762 (synonym: hme2) Homo sapiens cDNA clone DKFZp762J0610 5' |
| 8006 | 21056 | 34568 | 0.89 | 2.0E-17 | AB037839.1 | NT | Homo sapiens mRNA for KIAA1418 protein, partial cds |
| 8278 | 21367 | 34876 | 1.24 | 2.0E-17 | Q85156 | SWISSPROT | OLFACTORY RECEPTOR-LIKE PROTEIN OLF3 |
| 8651 | 21731 | 35270 | 1.05 | 2.0E-17 | AA300640.1 | EST_HUMAN | EST13504 Testis tumor Homo sapiens cDNA 5' end similar to similar to glycogenin |
| 10073 | 23111 | 38716 | 2.71 | 2.0E-17 | BE289888.1 | EST_HUMAN | 600944690F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2960616 5' |
| 10108 | 23148 | 38744 | 3.53 | 2.0E-17 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 10108 | 23148 | 38745 | 3.53 | 2.0E-17 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 10466 | 23601 | 37114 | 5.02 | 2.0E-17 | D13391.1 | NT | Human CYP19 gene for aromatase cytochrome P-450, promoter region (containing two cis-acting transcriptional regulatory elements) |
| 10590 | 23625 | 37232 | 0.97 | 2.0E-17 | P88063 | SWISSPROT | BONE MORPHOGENETIC PROTEIN 1 PRECURSOR (BMP-1) |
| 10590 | 23625 | 37233 | 0.97 | 2.0E-17 | P88063 | SWISSPROT | BONE MORPHOGENETIC PROTEIN 1 PRECURSOR (BMP-1) |
| 10818 | 23652 | 37261 | 0.93 | 2.0E-17 | AI798902.1 | EST_HUMAN | we84b04.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2348719 3' |
| 10818 | 23652 | 37262 | 0.93 | 2.0E-17 | AI798902.1 | EST_HUMAN | we84b04.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2348719 3' |
| 769 | 13550 | 26899 | 2.79 | 1.0E-17 | P08183 | SWISSPROT | MULTIDRUG RESISTANCE PROTEIN 1 (P-GLYCOPROTEIN 1) |
| 1745 | 14894 | | 2.01 | 1.0E-17 | AJ271736.1 | NT | Homo sapiens Xq pseudautosomal region; segment 2/2 |
| 1807 | 14956 | 28050 | 4.83 | 1.0E-17 | AL163207.2 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 2184 | 15319 | 28445 | 2.05 | 1.0E-17 | P02461 | SWISSPROT | COLLAGEN ALPHA 1(III) CHAIN PRECURSOR |
| 2412 | 15542 | 28569 | 3.16 | 1.0E-17 | U76410.1 | NT | Homo sapiens thrombospondin 2 (THBS2) gene, promoter region and exons 1A and 1B |
| 3657 | 16820 | | 1.03 | 1.0E-17 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 4256 | 17401 | | 9.42 | 1.0E-17 | R09942.1 | EST_HUMAN | y30a07.1 Soares fetal liver spleen 1N1FLS Homo sapiens cDNA clone IMAGE:128388 5' |

Page 244 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 6781 | 19948 | 33344 | 1.62 | 1.0E-17 | A1185642.1 | EST_HUMAN | q65505.x1 Soares_fetal_lung_NbHL18W Homo sapiens cDNA clone IMAGE:1743825 3' |
| 6781 | 19948 | 33346 | 1.62 | 1.0E-17 | A1185642.1 | EST_HUMAN | q65505.x1 Soares_fetal_lung_NbHL18W Homo sapiens cDNA clone IMAGE:1743825 3' |
| 7238 | 20322 | 33766 | 1.33 | 1.0E-17 | Q16831 | SWISSPROT | URIDINE PHOSPHORYLASE (UDRPASE) |
| 6782 | 21871 | 35410 | 1.28 | 1.0E-17 | BE082744.1 | EST_HUMAN | QV6-BT0263-101299-072-407 BT0263 Homo sapiens cDNA |
| 10210 | 23246 | 36636 | 1.04 | 1.0E-17 | AW896538.1 | EST_HUMAN | QV3-BN0048-220300-129-c10 BN0046 Homo sapiens cDNA |
| 11703 | 24700 | 38363 | 1.52 | 1.0E-17 | Q28824 | SWISSPROT | MYOSIN LIGHT CHAIN KINASE, SMOOTH MUSCLE (MLCK) [CONTAINS: TELOKIN] |
| 6668 | 22747 | 34146 | 3.05 | 8.0E-18 | A472167.1 | EST_HUMAN | q68403.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2148389 3' |
| 3886 | 17045 | 30044 | 2.14 | 8.0E-18 | 4758977 | NT | Homo sapiens protein tyrosine phosphatase, non-receptor type substrate 1 (PTPNS1) mRNA |
| 389 | 13570 | 26599 | 16.47 | 7.0E-18 | AW316976.1 | EST_HUMAN | xx10604.x1 NCL_CGAP_Part1 Homo sapiens cDNA clone IMAGE:2837071 3' similar to gb:L20868 60S |
| 359 | 13570 | 26800 | 16.47 | 7.0E-18 | AW316976.1 | EST_HUMAN | xx10604.x1 NCL_CGAP_Part1 Homo sapiens cDNA clone IMAGE:2837071 3' similar to gb:L20868 60S |
| 7601 | 20871 | 34146 | 1.09 | 7.0E-18 | AW887642.1 | EST_HUMAN | RIBOSOMAL PROTEIN L4 (HUMAN); |
| 12826 | 13570 | 26599 | 10.65 | 7.0E-18 | AW316976.1 | EST_HUMAN | RC3-OT0091-170300-011-403 OT0091 Homo sapiens cDNA |
| 12826 | 13570 | 26600 | 10.65 | 7.0E-18 | AW316976.1 | EST_HUMAN | xx10604.x1 NCL_CGAP_Part1 Homo sapiens cDNA clone IMAGE:2837071 3' similar to gb:L20868 60S |
| 3387 | 16539 | 29552 | 1.23 | 6.0E-18 | X71791.2 | NT | RIBOSOMAL PROTEIN L4 (HUMAN); |
| 4868 | 18001 | | 3.99 | 6.0E-18 | P52181 | SWISSPROT | PROTEIN-GLUTAMINE GAMMA-GLUTAMYLTRANSFERASE (TISSUE TRANSGLUTAMINASE) |
| 8444 | 21925 | | 3.47 | 8.0E-18 | 11428155 | NT | RNA |
| 8543 | 21824 | 35161 | 0.78 | 6.0E-18 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 9291 | 22367 | 35916 | 0.48 | 6.0E-18 | A1908258.1 | EST_HUMAN | RC-BT166-020499-014 BT166 Homo sapiens cDNA |
| 9291 | 22367 | 35917 | 0.48 | 6.0E-18 | A1908258.1 | EST_HUMAN | RC-BT166-020499-014 BT166 Homo sapiens cDNA |
| 11399 | 24460 | 38124 | 3.83 | 6.0E-18 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 11612 | 24684 | 38351 | 1.89 | 6.0E-18 | X87344.1 | NT | H. sapiens DMA, DM5, HLA-Z1, IPP2, LIMP2, TAP1, LMP7, TAP2, DOB, DOB2 and RING8, 9, 13 and 14 genes |
| 12634 | 25364 | 32068 | 3.91 | 6.0E-18 | U87929.1 | NT | Human acetylase hydratase (ACO2) gene, exon 4 |
| 1171 | 14334 | 27390 | 12.48 | 6.0E-18 | A1280214.1 | EST_HUMAN | qmi65g11.x1 Soares_placenta_Ric6weeks_2NbHP8c9W Homo sapiens cDNA clone IMAGE:1893688 3' |
| 4433 | 17573 | 30555 | 0.59 | 5.0E-18 | 10946605 | NT | similar to contains Alu repetitive element; |
| 5387 | 18589 | 31561 | 1.29 | 5.0E-18 | AF087913.1 | NT | Mus musculus gascdermin (Gcdm), mRNA |
| 8017 | 21996 | 35535 | 3.47 | 5.0E-18 | BE143312.1 | EST_HUMAN | Human endogenous retrovirus HERV-P-147D |
| | | | | | | | MR0-HT0161-221099-002-c06 HT0161 Homo sapiens cDNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Description |
|------------------------|-----------------------|-------------------|----------------------|---|-----------------------------|-------------------------------|---|
| 11223 | 24252 | 37682 | 3.43 | 5.0E-18 | 10242378 | NT | Homo sapiens lymphocyte activation-associated protein (LOC51088), mRNA |
| 11223 | 24292 | 37683 | 3.43 | 5.0E-18 | 10242378 | NT | Homo sapiens lymphocyte activation-associated protein (LOC51088), mRNA |
| 12876 | 25450 | | 6.28 | 5.0E-18 | AW967182.1 | EST_HUMAN | NR1-SN0035-060400-001-g11 SN0035 Homo sapiens cDNA |
| 13063 | 25696 | | 28.99 | 8.0E-18 | AV650547.1 | EST_HUMAN | AV650547 GLC Homo sapiens cDNA clone GLOCGA02 3' |
| 127 | 13355 | 26386 | 0.91 | 4.0E-18 | BE044076.1 | EST_HUMAN | h36h04.x1 NCI_CGAP_U1 Homo sapiens cDNA clone IMAGE:3039511 3' similar to contains MER29.b3 |
| 127 | 13355 | 26387 | 0.91 | 4.0E-18 | BE044076.1 | EST_HUMAN | MER29 repetitive element; |
| 1754 | 14903 | 27998 | 52.82 | 4.0E-18 | AA821814.1 | EST_HUMAN | h36h04.x1 NCI_CGAP_U1 Homo sapiens cDNA clone IMAGE:3039511 3' similar to contains MER29.b3 |
| 1938 | 15081 | | 1.05 | 4.0E-18 | AI138592.1 | EST_HUMAN | MER29 repetitive element; |
| 2274 | 15407 | 28536 | 1.26 | 4.0E-18 | Q08430 | SWISSPROT | h36h04.x1 NCI_CGAP_U1 Homo sapiens cDNA clone IMAGE:1144845 3' similar to gb:M26326 |
| 2274 | 15407 | 28537 | 1.26 | 4.0E-18 | Q08430 | SWISSPROT | h36h04.x1 NCI_CGAP_U1 Homo sapiens cDNA clone IMAGE:1144845 3' similar to gb:M26326 |
| 3892 | 17051 | 30050 | 0.61 | 4.0E-18 | AI681586.1 | EST_HUMAN | h36h04.x1 NCI_CGAP_U1 Homo sapiens cDNA clone IMAGE:1144845 3' similar to gb:M26326 |
| 5479 | 18876 | 31861 | 2.47 | 4.0E-18 | AI017565.1 | EST_HUMAN | h36h04.x1 NCI_CGAP_U1 Homo sapiens cDNA clone IMAGE:1144845 3' similar to gb:M26326 |
| 6479 | 18678 | 31692 | 2.47 | 4.0E-18 | AI017565.1 | EST_HUMAN | h36h04.x1 NCI_CGAP_U1 Homo sapiens cDNA clone IMAGE:1144845 3' similar to gb:M26326 |
| 8029 | 21112 | | 0.62 | 4.0E-18 | AA746811.1 | EST_HUMAN | h36h04.x1 NCI_CGAP_U1 Homo sapiens cDNA clone IMAGE:1144845 3' similar to gb:M26326 |
| 11264 | 24323 | 37664 | 7.59 | 4.0E-18 | AA371807.1 | EST_HUMAN | h36h04.x1 NCI_CGAP_U1 Homo sapiens cDNA clone IMAGE:1144845 3' similar to gb:M26326 |
| 872 | 14048 | 27114 | 3.81 | 3.0E-18 | AA814196.1 | EST_HUMAN | h36h04.x1 NCI_CGAP_U1 Homo sapiens cDNA clone IMAGE:1144845 3' similar to gb:M26326 |
| 953 | 14126 | 27187 | 2.25 | 3.0E-18 | BE086634.1 | EST_HUMAN | h36h04.x1 NCI_CGAP_U1 Homo sapiens cDNA clone IMAGE:1144845 3' similar to gb:M26326 |
| 4060 | 17216 | 30225 | 1.08 | 3.0E-18 | AL163247.2 | NT | h36h04.x1 NCI_CGAP_U1 Homo sapiens cDNA clone IMAGE:1144845 3' similar to gb:M26326 |
| 8968 | 20193 | 33622 | 4.72 | 3.0E-18 | BE001871.1 | EST_HUMAN | h36h04.x1 NCI_CGAP_U1 Homo sapiens cDNA clone IMAGE:1144845 3' similar to gb:M26326 |
| 11167 | 24238 | 37869 | 1.99 | 3.0E-18 | BF218650.1 | EST_HUMAN | h36h04.x1 NCI_CGAP_U1 Homo sapiens cDNA clone IMAGE:1144845 3' similar to gb:M26326 |
| 12832 | 25554 | | 4.55 | 3.0E-18 | AW022015.1 | EST_HUMAN | h36h04.x1 NCI_CGAP_U1 Homo sapiens cDNA clone IMAGE:1144845 3' similar to gb:M26326 |
| 261 | 13460 | 26512 | 4.2 | 2.0E-18 | AW836820.1 | EST_HUMAN | h36h04.x1 NCI_CGAP_U1 Homo sapiens cDNA clone IMAGE:1144845 3' similar to gb:M26326 |
| 1176 | 14339 | | 74.12 | 2.0E-18 | BE236097.1 | EST_HUMAN | h36h04.x1 NCI_CGAP_U1 Homo sapiens cDNA clone IMAGE:1144845 3' similar to gb:M26326 |
| 3163 | 16368 | 26374 | 0.94 | 2.0E-18 | Q39575 | SWISSPROT | h36h04.x1 NCI_CGAP_U1 Homo sapiens cDNA clone IMAGE:1144845 3' similar to gb:M26326 |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6527 | 18724 | | 4.2 | 2.0E-18 | AA898810.1 | EST_HUMAN | af53a07.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1408652 3' similar to TR:O14577 |
| 6823 | 18817 | 31886 | 3.51 | 2.0E-18 | D14547.1 | NT | O14577 BAC CLONE RG114A08 FROM TQ31, COMPLETE SEQUENCE. ; |
| 6823 | 18817 | 31887 | 3.51 | 2.0E-18 | D14547.1 | NT | Human DNA, SINE repetitive element |
| 5089 | 18184 | | 1.64 | 2.0E-18 | BF347229.1 | EST_HUMAN | Human DNA, SINE repetitive element |
| 6284 | 19467 | 32820 | 0.91 | 2.0E-18 | X60459.1 | NT | 602021164F1 NCL_CGAP_Brn07 Homo sapiens cDNA clone IMAGE:4156670 5' |
| 6284 | 19467 | 32821 | 0.91 | 2.0E-18 | X60459.1 | NT | Human IFNAR gene for interferon alpha/beta receptor |
| 6408 | 18577 | 32838 | 0.9 | 2.0E-18 | BF352940.1 | EST_HUMAN | Human IFNAR gene for interferon alpha/beta receptor |
| 6448 | 18615 | 32979 | 2.93 | 2.0E-18 | AW665633.1 | EST_HUMAN | IL3-HT0619-220700-222-C12 HT0619 Homo sapiens cDNA |
| 7594 | 20865 | 34141 | 0.59 | 2.0E-18 | AA457619.1 | EST_HUMAN | h94g01.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2976884 3' similar to contains |
| 6341 | 21422 | 34947 | 0.6 | 2.0E-18 | BE439524.1 | EST_HUMAN | MER19.12 MER19 repetitive element ; |
| 10263 | 23268 | 36884 | 0.95 | 2.0E-18 | AW151673.1 | EST_HUMAN | aa68d11.1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:838465 5' similar to |
| 10263 | 23268 | 36885 | 0.95 | 2.0E-18 | AW151673.1 | EST_HUMAN | TR-G81634 G81634 POLYPEPTIDE PR77 ; |
| 11217 | 24286 | 37925 | 2.91 | 2.0E-18 | AW470791.1 | EST_HUMAN | HTM1-160F1 HTM1 Homo sapiens cDNA |
| 12031 | 25014 | 38716 | 4.46 | 2.0E-18 | AW151289.1 | EST_HUMAN | xi67e10.x1 NCL_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2823146 3' similar to contains MER10.12 |
| 12465 | 14339 | | 12.67 | 2.0E-18 | BE26087.1 | EST_HUMAN | MER10 repetitive element ; |
| 4537 | 17876 | | 0.75 | 1.0E-18 | T86406.1 | EST_HUMAN | xi67e10.x1 NCL_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2823146 3' similar to contains MER10.12 |
| 5471 | 18671 | 31651 | 2.84 | 1.0E-18 | AV653405.1 | EST_HUMAN | MER10 repetitive element ; |
| 6688 | 18882 | 32174 | 3.08 | 1.0E-18 | D00099.1 | NT | he33d09.x1 NCL_CGAP_Kd12 Homo sapiens cDNA clone IMAGE:2875489 3' similar to contains THR.b3 |
| 5683 | 18892 | 32175 | 3.08 | 1.0E-18 | D00099.1 | NT | THR repetitive element ; |
| 6584 | 19746 | 33128 | 1.31 | 1.0E-18 | AL163280.2 | NT | xg47e09.x1 NCL_CGAP_U11 Homo sapiens cDNA clone IMAGE:2630728 3' similar to contains MER8.b2 |
| 8637 | 21717 | 35254 | 1.05 | 1.0E-18 | AI148288.1 | EST_HUMAN | MER8 repetitive element ; |
| 10103 | 23141 | 36740 | 4.63 | 1.0E-18 | U91328.1 | NT | 601114352F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3355044 5' |
| 12410 | 25284 | 32084 | 4.65 | 1.0E-18 | AF003529.1 | NT | ye43g05.11 Soares fetal liver spleen TNFLS Homo sapiens cDNA clone IMAGE:120536 5' similar to contains |
| | | | | | | | L1 repetitive element ; |
| | | | | | | | AV653405 GLC Homo sapiens cDNA clone GLCCKE11 3' |
| | | | | | | | Homo sapiens mRNA for Na,K-ATPase alpha-subunit, complete cds |
| | | | | | | | Homo sapiens mRNA for Na,K-ATPase alpha-subunit, complete cds |
| | | | | | | | Homo sapiens chromosome 21 segment HS21C080 |
| | | | | | | | oz68d09.x1 Soares_senescent_fibroblasts_NbHSF Homo sapiens cDNA clone IMAGE:1680893 3' similar to contains L1.11 L1 repetitive element ; |
| | | | | | | | Human hereditary haemochromatosis region, histone 2A-like protein gene, hereditary haemochromatosis (HLA-H) gene, RoRet gene, and sodium phosphate transporter (NPT3) gene, complete cds |
| | | | | | | | Homo sapiens glycican 3 (GPC3) gene, partial cds and flanking repeat regions |

Page 247 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 559 | 13762 | 26780 | 5.1 | 9.0E-19 | AA281981.1 | EST_HUMAN | z111d06.r1 NCL_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:712811 5' similar to contains MER19.12 MER19 repetitive element; |
| 560 | 13762 | 26780 | 3.91 | 9.0E-19 | AA281981.1 | EST_HUMAN | z111d06.r1 NCL_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:712811 5' similar to contains MER19.12 MER19 repetitive element; |
| 8032 | 21115 | | 3.69 | 9.0E-19 | F08688.1 | EST_HUMAN | HSC23F051 normalized infant brain cDNA Homo sapiens cDNA clone c-23105 Homo sapiens chromosome 21 segment HS21C003 |
| 8886 | 21985 | 35501 | 2.57 | 9.0E-19 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 8886 | 21985 | 35502 | 2.57 | 9.0E-19 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 11392 | 24453 | 38116 | 3.15 | 9.0E-19 | AB032969.1 | NT | Homo sapiens mRNA for KIAA1143 protein, partial cds |
| 12171 | 13752 | 26780 | 19.34 | 9.0E-19 | AA281981.1 | EST_HUMAN | z111d06.r1 NCL_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:712811 5' similar to contains MER19.12 MER19 repetitive element; |
| 1073 | 14239 | | 1.56 | 8.0E-19 | AW974902.1 | EST_HUMAN | EST387007 MAGE resequences, MAGN Homo sapiens cDNA |
| 8342 | 21423 | 34948 | 1.12 | 8.0E-19 | BE156836.1 | EST_HUMAN | MRQ-HT0404-210200-001-g08 HT0404 Homo sapiens cDNA |
| 2319 | 15451 | 28583 | 1.74 | 7.0E-19 | 4758139 | NT | Homo sapiens DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 6 (RNA helicase, 64kD) (DDX6) mRNA |
| 6886 | 19747 | 33129 | 2.11 | 7.0E-19 | AF092090.1 | NT | Rattus norvegicus cpi151 mRNA, partial cds |
| 7452 | 20529 | 34002 | 0.94 | 7.0E-19 | P28444 | SWISSPROT | BETA CRYSTALLIN A2 |
| 10216 | 23252 | 36841 | 0.54 | 7.0E-19 | A1344951.1 | EST_HUMAN | IB01c08.x1 NCL_CGAP_Lu28 Homo sapiens cDNA clone IMAGE:2052302 3' |
| 12316 | 28183 | | 1.72 | 7.0E-19 | AA705684.1 | EST_HUMAN | z180b01.s1 Soares_fetal_liver_epilep_1NFLS_S1 Homo sapiens cDNA clone IMAGE:435145 3' |
| 3879 | 17038 | | 1.16 | 6.0E-19 | AW852930.1 | EST_HUMAN | PMO-CT0248-131099-001-g01 CT0248 Homo sapiens cDNA |
| 4686 | 17722 | 30705 | 1.56 | 6.0E-19 | P34986 | SWISSPROT | OLFACTORY RECEPTOR 6 (M50) |
| 4686 | 17722 | 30705 | 1.56 | 6.0E-19 | P34986 | SWISSPROT | OLFACTORY RECEPTOR 6 (M50) |
| 4921 | 18051 | | 1.2 | 6.0E-19 | AJ271735.1 | NT | Homo sapiens Xq pseudautosomal region, segment 1/2 |
| 5978 | 19163 | 32483 | 6.17 | 6.0E-19 | Q00193 | SWISSPROT | ZP-X (RC55) |
| 6346 | 19516 | 32873 | 0.59 | 5.0E-19 | AW663302.1 | EST_HUMAN | h177b08.y1 NCL_CGAP_GUI Homo sapiens cDNA clone IMAGE:288767 5' |
| 10639 | 23573 | 37283 | 1.18 | 6.0E-19 | AJ287688.1 | NT | Homo sapiens partial IL-12RB1 gene for IL-12 receptor beta1 chain, exon 14 |
| 11828 | 24818 | 38509 | 8.14 | 5.0E-19 | AW183725.1 | EST_HUMAN | x87b02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2884171 3' similar to contains element MSR1 repetitive element; |
| 13083 | 25995 | | 1.34 | 5.0E-19 | U68060.1 | NT | Human germ-line T-cell receptor beta chain TCRBV193.1, TCRBV68A2T, TCRBV68A3N2T, TCRBV13S8A2T, TCRBV68S9P, TCRBV68S3A2T, TCRBV13S8P, TCRBV68S3A1N1T, TCRBV68S2, TCRBV68S6A2T, TCRBV68S7P, TCRBV13S4, TCRBV68S2A1N1T, TCRBV68S4A2T, TCRBV68S4A1, TCRBV23S1A2T, TCRBV12> |
| 568 | 13760 | 28784 | 0.96 | 4.0E-19 | AB007970.1 | NT | Homo sapiens mRNA, chromosome 1 specific transcript KIAA0501 |
| 2747 | 16894 | 28976 | 1.15 | 4.0E-19 | BF697362.1 | EST_HUMAN | 602130910F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4287674 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| | | | | | | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 5512 | 18710 | 31725 | 1.2 | 4.0E-19 | AF224669.1 | NT | |
| 3955 | 17113 | 30114 | 1.02 | 3.0E-19 | Q28997 | SWISSPROT | BETA-2 ADRENERGIC RECEPTOR |
| 3955 | 17113 | 30115 | 1.02 | 3.0E-19 | Q28997 | SWISSPROT | BETA-2 ADRENERGIC RECEPTOR |
| 4400 | 17643 | 30628 | 0.85 | 3.0E-19 | O43900 | SWISSPROT | LIM-ONLY PROTEIN 5 (TRIPLE LIM DOMAIN PROTEIN 6) |
| 4400 | 17643 | 30627 | 0.85 | 3.0E-19 | O43900 | SWISSPROT | LIM-ONLY PROTEIN 8 (TRIPLE LIM DOMAIN PROTEIN 8) |
| 4889 | 17707 | 30686 | 1.42 | 3.0E-19 | AV708136.1 | EST_HUMAN | AV708136 ADC Homo sapiens cDNA clone ADCAMA11 5' |
| 6394 | 18596 | | 0.69 | 3.0E-19 | AF223467.1 | NT | Homo sapiens NPD008 protein (NPD008) mRNA, complete cds |
| | | | | | | NT | Homo sapiens similar to aldose-keto reductase family 1, member B11 (aldose reductase-like) (H. sapiens) (LOC83222), mRNA |
| 7643 | 20615 | | 1.88 | 3.0E-19 | 11432214 | NT | |
| 8658 | 21101 | 34614 | 1.09 | 3.0E-19 | X89685.1 | NT | Mus musculus mRNA for TPCR33 protein |
| 12693 | 25385 | | 16.36 | 3.0E-19 | AF15520.1 | NT | Homo sapiens phorbol 1 protein (PBI) mRNA, complete cds |
| 2627 | 15750 | 28865 | 20.06 | 2.0E-19 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| | | | | | | EST_HUMAN | POUENF GENE ; |
| 4568 | 17706 | | 1.34 | 2.0E-19 | AI311783.1 | EST_HUMAN | |
| 6178 | 18355 | 32703 | 0.81 | 2.0E-19 | AV731382.1 | EST_HUMAN | AV731382 HTF Homo sapiens cDNA clone HTFAZC06 5' |
| 7493 | 20568 | 34040 | 0.63 | 2.0E-19 | 7657286 | NT | Mus musculus keratin-associated protein 9-1 (Ktarp9-1), mRNA |
| 8528 | 21606 | 38146 | 10.24 | 2.0E-19 | AA012854.1 | EST_HUMAN | z334c09 r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:380880 5' |
| 10113 | 23151 | 38753 | 0.64 | 2.0E-19 | Q85155 | SWISSPROT | OLFACTORY RECEPTOR-LIKE PROTEIN OLF2 |
| 494 | 19689 | | 1.86 | 1.0E-19 | BE408611.1 | EST_HUMAN | 601304125F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3638310 5' |
| | | | | | | EST_HUMAN | y079g07.r1 Soares adult brain N2b4HB55Y Homo sapiens cDNA clone IMAGE:184188 5' similar to contains |
| 2233 | 15367 | 28488 | 1.84 | 1.0E-19 | H30795.1 | EST_HUMAN | MER10 repetitive element ; |
| 2782 | 18898 | | 2.4 | 1.0E-19 | D38044.1 | NT | Human gene for AII-receptor, exon 7-9 |
| 2809 | 18087 | | 6.72 | 1.0E-19 | 4756977 | NT | Homo sapiens protein tyrosine phosphatase, non-receptor type substrate 1 (PTPNS1) mRNA |
| 3488 | 18655 | 28989 | 1.18 | 1.0E-19 | AA834907.1 | EST_HUMAN | al49b12.s1 Soares testis NHT Homo sapiens cDNA clone IMAGE:1938931 3' similar to contains MER37.12 |
| 5452 | 18652 | 31631 | 0.73 | 1.0E-19 | AI890868.1 | EST_HUMAN | MER37 repetitive element ; |
| 6199 | 19374 | 32725 | 2.6 | 1.0E-19 | U12186.1 | NT | wm91b08.x1 NCI_CGAP_U12 Homo sapiens cDNA clone IMAGE:2443287 3' similar to TR:Q16630 Q16630 |
| | | | | | | EST_HUMAN | PMS3 MRNA ; |
| 6337 | 26213 | | *0.63 | 1.0E-19 | AA595527.1 | EST_HUMAN | Oryzobagus cuticular sodium/dicarboxylate cotransporter mRNA, partial cds |
| 7808 | 20862 | 34355 | 1.05 | 1.0E-19 | U08813.1 | NT | nt22403.s1 NCI_CGAP_P11 Homo sapiens cDNA clone IMAGE:953083 similar to contains L1.1 L1 |
| 7806 | 20862 | 34356 | 1.05 | 1.0E-19 | U08813.1 | NT | Oryzobagus cuticular Na+/glucose cotransporter-related protein mRNA, complete cds |
| 7977 | 25856 | | 0.75 | 1.0E-19 | AF200719.1 | NT | Oryzobagus cuticular Na+/glucose cotransporter-related protein mRNA, complete cds |
| | | | | | | NT | Homo sapiens pituitary tumor transforming gene protein (PTTG) gene, complete cds |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8644 | 21724 | 35261 | 1.94 | 1.0E-19 | M64657.1 | NT | Rabbit phosphorylase kinase beta subunit mRNA, complete cds |
| 8639 | 22018 | | 2.72 | 1.0E-19 | T99920.1 | EST_HUMAN | y972b02.r1 Soares fetal liver spleen 1NfLS Homo sapiens cDNA clone IMAGE:123243 5' similar to contains OFR repetitive element; |
| 8950 | 22989 | | 0.69 | 1.0E-19 | U60822.1 | NT | Human dystrophin (DMD) gene, exons 7, 8 and 9, and partial cds |
| 10390 | 23425 | 37032 | 25.12 | 1.0E-19 | AW812259.1 | EST_HUMAN | RC0-ST0174-191089-031-b05 ST0174 Homo sapiens cDNA |
| 10400 | 23435 | 37042 | 1.59 | 1.0E-19 | N44631.1 | EST_HUMAN | W37e06.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:272872 5' |
| 11184 | 24253 | 37888 | 1.87 | 1.0E-19 | BE016028.1 | EST_HUMAN | 601270882.F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3811463 5' |
| 6784 | 19339 | 33336 | 2.4 | 8.0E-20 | 7657286 | NT | Mus musculus keratin-associated protein 9-1 (Ktap9-1), mRNA |
| 6784 | 19339 | 33337 | 2.4 | 8.0E-20 | 7657286 | NT | Mus musculus keratin-associated protein 9-1 (Ktap9-1), mRNA |
| 7687 | 20752 | 34234 | 1.48 | 8.0E-20 | AI221371.1 | EST_HUMAN | q98f06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1842089 3' |
| 7687 | 20752 | 34235 | 1.45 | 8.0E-20 | AI221371.1 | EST_HUMAN | q98f06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1842089 3' |
| 3349 | 16521 | 29637 | 0.71 | 7.0E-20 | BF326455.1 | EST_HUMAN | PM4-AN0098-050900-003-a04 AN0098 Homo sapiens cDNA |
| 7134 | 18560 | 31474 | 5.66 | 7.0E-20 | AL138120.1 | EST_HUMAN | DKFZp47D002.t1 547 (synonym: hbr1) Homo sapiens cDNA clone DKFZp547D092 5' |
| 8693 | 21773 | 35305 | 8.83 | 7.0E-20 | AA557687.1 | EST_HUMAN | nl46d04.s1 NCI CGAP_P4 Homo sapiens cDNA clone IMAGE:1043718 similar to contains MER28.b2 |
| 8693 | 21773 | 35306 | 8.83 | 7.0E-20 | AA557687.1 | EST_HUMAN | nl46d04.s1 NCI CGAP_P4 Homo sapiens cDNA clone IMAGE:1043718 similar to contains MER28.b2 |
| 12014 | 24968 | | 2.89 | 7.0E-20 | 6912633 | NT | Homo sapiens ribosomal protein L13a (RPL13A), mRNA |
| 3845 | 16908 | 29822 | 3.64 | 6.0E-20 | P39188 | SWISSPROT | ALU SUBFAMILY J SEQUENCE CONTAMINATION WARNING ENTRY |
| 4387 | 17530 | 30511 | 4.58 | 6.0E-20 | BE622434.1 | EST_HUMAN | 601441231.F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3916231 5' |
| 4718 | 17653 | | 1.8 | 6.0E-20 | AV725123.1 | EST_HUMAN | AV725123 HTC Homo sapiens cDNA clone HTC8TA01 5' |
| 7264 | 20347 | 33700 | 1.42 | 6.0E-20 | AF075301.1 | EST_HUMAN | AF075301 Human fetal liver cDNA library Homo sapiens cDNA clone HA0250 |
| 8131 | 21213 | 34733 | 6.96 | 6.0E-20 | W90525.1 | EST_HUMAN | zh78d08.s1 Soares_fetal_liver_spleen_1NfLS_S1 Homo sapiens cDNA clone IMAGE:418191 3' similar to contains MER30.t1 MER30 repetitive element; |
| 8131 | 21213 | 34734 | 6.96 | 6.0E-20 | W90525.1 | EST_HUMAN | zh78d08.s1 Soares_fetal_liver_spleen_1NfLS_S1 Homo sapiens cDNA clone IMAGE:418191 3' similar to contains MER30.t1 MER30 repetitive element; |
| 8295 | 21377 | 34898 | 0.79 | 6.0E-20 | BE165980.1 | EST_HUMAN | MR3-HT0487-160200-113-g01 HT0487 Homo sapiens cDNA |
| 9035 | 22114 | 35657 | 1.28 | 6.0E-20 | AB028174.1 | NT | Mus musculus IMAN-g mRNA, complete cds |
| 9035 | 22114 | 35658 | 1.28 | 6.0E-20 | AB028174.1 | NT | Mus musculus IMAN-g mRNA, complete cds |
| 9844 | 21087 | | 1.13 | 6.0E-20 | O60809 | SWISSPROT | HYPOTHETICAL PROTEIN DJ645024.1 |
| 1849 | 14902 | 27889 | 0.94 | 4.0E-20 | AL163247.2 | NT | Homo sapiens chromosome 21 segment H821C047 |
| 6765 | 18957 | | 1.13 | 4.0E-20 | Q99880 | SWISSPROT | HISTONE H2B C (H2B/C) |
| 8110 | 21192 | | 5.61 | 4.0E-20 | AI874352.1 | EST_HUMAN | t684g03.x1 NCI CGAP_OV35 Homo sapiens cDNA clone IMAGE:2283396 3' |
| 10717 | 23750 | 37357 | 1.13 | 4.0E-20 | AW837465.1 | EST_HUMAN | QV3-DT0043-090200-080-c04 DT0043 Homo sapiens cDNA |

Page 250 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptr |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 2207 | 15341 | 28468 | 1.22 | 3.0E-20 | U03888.1 | NT | Human BXP21 gene |
| 4325 | 17468 | 30455 | 1.29 | 3.0E-20 | P23273 | SWISSPROT | OLFATORY RECEPTOR-LIKE PROTEIN 114 |
| 4747 | 17882 | 30864 | 1.08 | 3.0E-20 | AA037618.1 | EST_HUMAN | z38612.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:484895 3' similar to contains L1.13 L1 repetitive element ; |
| 9135 | 22214 | | 2.69 | 3.0E-20 | D14647.1 | NT | Human DNA, SINE repetitive element |
| 10627 | 23562 | 37168 | 0.47 | 3.0E-20 | BF165284.1 | EST_HUMAN | 60184363F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4084343 5' |
| 10600 | 23884 | | 1.59 | 3.0E-20 | P11369 | SWISSPROT | RETROVIRUS-RELATED POLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE ; |
| 12331 | 25239 | 32109 | 6.09 | 3.0E-20 | BE889422.1 | EST_HUMAN | ENDONUCLEASE |
| 853 | 14030 | | 5.65 | 2.0E-20 | AW303868.1 | EST_HUMAN | 601614180F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3915522 5' |
| 1135 | 14300 | 27355 | 2.49 | 2.0E-20 | AA516335.1 | EST_HUMAN | x24e10.x1 NCI_CGAP_U14 Homo sapiens cDNA clone IMAGE:2781098 3' similar to SW:RS5_MOUSE |
| 1135 | 14300 | 27355 | 2.49 | 2.0E-20 | AA516335.1 | EST_HUMAN | P97461 40S RIBOSOMAL PROTEIN S5 ; |
| 2878 | 14030 | | 5.32 | 2.0E-20 | AW303868.1 | EST_HUMAN | ng68h09.x1 NCI_CGAP_Lip2 Homo sapiens cDNA clone IMAGE:940087 similar to TR:G1224088 |
| 5061 | 18189 | 31163 | 5.15 | 2.0E-20 | Q28983 | SWISSPROT | G1224068 ORF2: FUNCTION UNKNOWN ; |
| 5061 | 18189 | 31164 | 5.15 | 2.0E-20 | Q28983 | SWISSPROT | ng68h09.x1 NCI_CGAP_Lip2 Homo sapiens cDNA clone IMAGE:940087 similar to TR:G1224068 |
| 6268 | 18376 | | 0.9 | 2.0E-20 | 5174538 | NT | G1224068 ORF2: FUNCTION UNKNOWN ; |
| 8308 | 21391 | 34915 | 0.97 | 2.0E-20 | AA309467.1 | EST_HUMAN | x24e10.x1 NCI_CGAP_U14 Homo sapiens cDNA clone IMAGE:2781098 3' similar to SW:RS5_MOUSE |
| 8391 | 22466 | 36031 | 2.65 | 2.0E-20 | D10083.1 | NT | P97461 40S RIBOSOMAL PROTEIN S5 ; |
| 9391 | 22466 | 36031 | 2.65 | 2.0E-20 | D10083.1 | NT | ZONADHESIN PRECURSOR |
| 12743 | 25378 | 31852 | 2.17 | 2.0E-20 | H55371.1 | EST_HUMAN | ZONADHESIN PRECURSOR |
| 2070 | 15995 | 28327 | 6.61 | 1.0E-20 | AA281981.1 | EST_HUMAN | Homo sapiens malate dehydrogenase 1, NAD (soluble) (MDH1) mRNA |
| 4560 | 17988 | 30879 | 1.02 | 1.0E-20 | BF115158.1 | EST_HUMAN | EST180328 Liver III Homo sapiens cDNA 5' end |
| 7034 | 20170 | 33592 | 0.74 | 1.0E-20 | AF049567.1 | EST_HUMAN | Homo sapiens RGH1 gene, retrovirus-like element |
| 9364 | 22439 | 35998 | 2.08 | 1.0E-20 | 114718491 | NT | Homo sapiens RGH1 gene, retrovirus-like element |
| 11847 | 24838 | 38530 | 2.03 | 1.0E-20 | AF223381.1 | NT | CHR220310 Chromosome 22 exon Homo sapiens cDNA clone C22_391 5' |
| 12461 | 25323 | | 2.91 | 1.0E-20 | AA420453.1 | EST_HUMAN | z11d08.r1 NCI_CGAP_GC81 Homo sapiens cDNA clone IMAGE:712811 5' similar to contains MER19.12 |
| | | | | | | | MER19 repetitive element ; |
| | | | | | | | nr84805.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3135155 3' similar to contains L1.12 L1 repetitive element ; |
| | | | | | | | AF049587 Human activated dendritic cell mRNA Homo sapiens cDNA clone GA05 |
| | | | | | | | Homo sapiens Autosomal Highly Conserved Protein (AHCP), mRNA |
| | | | | | | | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| | | | | | | | nc60g08.r1 NCI_CGAP_F11 Homo sapiens cDNA clone IMAGE:745694 similar to contains L1.13 L1 repetitive element ; |

Page 251 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO. | Exon SEQ ID NO. | ORF SEQ ID NO. | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 2979 | 16155 | | 1.18 | 9.0E-21 | AJ003514.1 | EST_HUMAN | AJ003514 Selected chromosome 21 cDNA library Homo sapiens cDNA clone MPIp12-5J21 |
| 12174 | 25135 | | 3.98 | 9.0E-21 | AW688189.1 | EST_HUMAN | RC3-NN0088-090500-021-503 NN0088 Homo sapiens cDNA |
| 9011 | 22090 | | 0.98 | 8.0E-21 | AW674891.1 | EST_HUMAN | b330402.y1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2884714 5' similar to SW:NIAM_HUMAN |
| 11830 | 24819 | 38610 | 3.91 | 8.0E-21 | AA809471.1 | EST_HUMAN | C95169 NADH-UBIQUINONE OXIDOREDUCTASE ASH1 SUBUNIT PRECURSOR ; |
| 12345 | 25259 | | 3.8 | 8.0E-21 | O21330 | SWISSPROT | cb7108.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1336835 3' |
| 2130 | 15268 | 28385 | 3.85 | 7.0E-21 | P15800 | SWISSPROT | ATP SYNTHASE A CHAIN (PROTEIN 6) |
| 2130 | 15268 | 28386 | 3.85 | 7.0E-21 | P15800 | SWISSPROT | LAMININ BETA-2 CHAIN PRECURSOR (S-LAMININ) (LAMININ CHAIN B3) |
| 3792 | 16953 | 28958 | 1.36 | 7.0E-21 | AL163300.2 | NT | LAMININ BETA-2 CHAIN PRECURSOR (S-LAMININ) (LAMININ CHAIN B3) |
| 4369 | 17612 | | 8.29 | 7.0E-21 | AA046502.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C100 |
| 6564 | 19726 | 33104 | 0.94 | 7.0E-21 | AL163218.2 | NT | Zk87a08.t1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:487858 5' |
| 8582 | 21663 | 35203 | 1.46 | 7.0E-21 | AJ277557.1 | NT | Homo sapiens chromosome 21 segment HS21C018 |
| 8876 | 21954 | 35490 | 4.94 | 7.0E-21 | D14718.1 | NT | Homo sapiens dNT-2 gene for mitochondrial 5'(3')-deoxyribonucleotide (dNT-2 gene), exons 1-5 |
| 10319 | 23354 | 36963 | 1.07 | 7.0E-21 | AW856922.1 | EST_HUMAN | Human chromosomal protein HMGI related gene |
| 10934 | 24016 | 37648 | 1.94 | 7.0E-21 | AA723404.1 | EST_HUMAN | RC0-CT0301-271199-031-F93 CT0301 Homo sapiens cDNA |
| 4220 | 17369 | 30358 | 0.75 | 6.0E-21 | BE408611.1 | EST_HUMAN | zg73403.s1 Soares_fetal_heart_NbHH18W Homo sapiens cDNA clone IMAGE:388881 3' similar to |
| -9336 | 22412 | | 1.39 | 8.0E-21 | BE162737.1 | EST_HUMAN | gb.M14338 VITAMIN K-DEPENDENT PROTEIN S PRECURSOR (HUMAN);contains THR.13 OFF |
| 947 | 14120 | 27181 | 1.34 | 6.0E-21 | 6902031 | NT | repetitive element ; |
| 2354 | 15485 | 28617 | 1.23 | 5.0E-21 | AA928194.1 | EST_HUMAN | 601304125F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3898310 5' |
| 4483 | 17623 | 30604 | 3.21 | 5.0E-21 | BE988899.1 | EST_HUMAN | FM1-HT0454-080100-002-H09 HT0454 Homo sapiens cDNA |
| 4809 | 14120 | 27181 | 1.16 | 5.0E-21 | 6902031 | NT | Homo sapiens protein tyrosine phosphatase, non-receptor type 21 (PTPN21), mRNA |
| 4923 | 18053 | 31039 | 8.33 | 5.0E-21 | 4885474 | NT | ori29g03.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1641808 3' similar to TR:002711 |
| 6902 | 20217 | | 0.77 | 5.0E-21 | AW440864.1 | EST_HUMAN | O02711 PRO-POL-DUTPASE POLYPROTEIN ; |
| 7157 | 20291 | 33734 | 1 | 5.0E-21 | BE859505.1 | EST_HUMAN | 601649871F1 NIH_MGC_74 Homo sapiens cDNA clone IMAGE:3933980 5' |
| 10801 | 23834 | 37457 | 0.54 | 5.0E-21 | Q91680 | SWISSPROT | Homo sapiens protein tyrosine phosphatase, non-receptor type 21 (PTPN21), mRNA |
| 10801 | 23834 | 37458 | 0.54 | 5.0E-21 | Q91680 | SWISSPROT | Homo sapiens melanoma antigen, family C, 1 (MAGEC1), mRNA |
| 12259 | 25195 | | 1.28 | 5.0E-21 | AA393574.1 | EST_HUMAN | he059e10.x1 NCI_CGAP_CML1 Homo sapiens cDNA clone IMAGE:2918154 3' |
| 1772 | 14921 | 28015 | 1.98 | 4.0E-21 | AA970713.1 | EST_HUMAN | 783d11.x1 NCI_CGAP_P728 Homo sapiens cDNA clone IMAGE:3303673 3' similar to contains OFR.t1 |
| | | | | | | | OFR repetitive element ; |
| | | | | | | | ZINC FINGER PROTEIN GLI1 (GLI-1) |
| | | | | | | | ZINC FINGER PROTEIN GLI1 (GLI-1) |
| | | | | | | | z172c04.t1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:727678 5' |
| | | | | | | | cd86e08.s1 NCI_CGAP_K145 Homo sapiens cDNA clone IMAGE:1573084 3' similar to TR:Q16630 Q16630 |
| | | | | | | | PMS3 MRNA ;contains OFR.t1 OFF repetitive element ; |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 7011 | 20147 | 33668 | 2.61 | 4.0E-21 | AB019578.1 | NT | Rattus norvegicus mRNA for rTIM, complete cds |
| 9983 | 23022 | 36614 | 0.82 | 4.0E-21 | U91328.1 | NT | Human hereditary haemochromatosis region, histone 2A-like protein gene, hereditary haemochromatosis (HLA-H) gene, RoRet gene, and sodium phosphate transporter (NP-TS) gene, complete cds |
| 10010 | 23048 | 36642 | 0.61 | 4.0E-21 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 1894 | 15028 | 28135 | 1.1 | 3.0E-21 | AA218891.1 | EST_HUMAN | z116d06.91 Stralagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:829771 3' |
| 2348 | 15479 | 28611 | 1.51 | 3.0E-21 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 3149 | 16324 | 29335 | 6.41 | 3.0E-21 | AJ007979.1 | NT | Homo sapiens LGMD2B gene |
| 5616 | 18810 | 31878 | 0.92 | 3.0E-21 | AJ277557.1 | NT | Homo sapiens dNT-2 gene for mitochondrial 5'(3')-deoxyribonucleotidase (dNT-2 gene), exons 1-5 |
| 5616 | 18810 | 31878 | 0.92 | 3.0E-21 | AJ277557.1 | NT | Homo sapiens dNT-2 gene for mitochondrial 5'(3')-deoxyribonucleotidase (dNT-2 gene), exons 1-5 |
| 5856 | 19046 | | 0.9 | 3.0E-21 | AF691044.1 | EST_HUMAN | AV661044 GLC Homo sapiens cDNA clone GLC0A10 3' |
| 6308 | 19480 | | 2.74 | 3.0E-21 | BF184739.1 | EST_HUMAN | BD1844465F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4084945 5' |
| 7215 | 20080 | 33493 | 7.52 | 3.0E-21 | BF361093.1 | EST_HUMAN | RC1-OT0083-100800-019-p08 OT0083 Homo sapiens cDNA |
| 9894 | 22834 | 36618 | 0.92 | 3.0E-21 | AW89760.1 | EST_HUMAN | GM1-NN0083-280400-203-p08 NN0083 Homo sapiens cDNA |
| 12879 | 26099 | 31665 | 3.58 | 3.0E-21 | AL163213.2 | NT | Homo sapiens chromosome 21 segment HS21C013 |
| 150 | 13376 | | 24.5 | 2.0E-21 | BE163247.1 | EST_HUMAN | QV3-HT0458-170200-090-g12 HT0458 Homo sapiens cDNA |
| 988 | 14131 | 27189 | 0.81 | 2.0E-21 | AB007857.2 | NT | Homo sapiens mRNA for KIAA0397 protein, partial cds |
| 988 | 14131 | 27190 | 0.81 | 2.0E-21 | AB007857.2 | NT | Homo sapiens mRNA for KIAA0397 protein, partial cds |
| 1241 | 14400 | | 3.03 | 2.0E-21 | BE064410.1 | EST_HUMAN | RC4-BT0311-141189-011-H08 BT0311 Homo sapiens cDNA |
| 2703 | 15821 | 28937 | 2.59 | 2.0E-21 | Q28983 | SWISSPROT | ZONADHESIN PRECURSOR |
| 2703 | 15821 | 28938 | 2.59 | 2.0E-21 | Q28983 | SWISSPROT | ZONADHESIN PRECURSOR |
| 5601 | 18796 | 31846 | 1.65 | 2.0E-21 | AI624582.1 | EST_HUMAN | ts30f03.x1 NCL_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2230109 3' similar to TR:Q98854 Q98854 |
| 5694 | 18898 | 32178 | 0.8 | 2.0E-21 | AA027211.1 | EST_HUMAN | HYPOTHETICAL 51.1 KD PROTEIN : |
| 5694 | 18898 | 32179 | 0.8 | 2.0E-21 | AA027211.1 | EST_HUMAN | z997a12.f1 Soares_fetal_heart_NBHH19W Homo sapiens cDNA clone IMAGE:366910 5' |
| 5694 | 18898 | 32179 | 0.8 | 2.0E-21 | AA027211.1 | EST_HUMAN | z997a12.f1 Soares_fetal_heart_NBHH19W Homo sapiens cDNA clone IMAGE:366910 5' |
| 6157 | 19333 | 32879 | 0.74 | 2.0E-21 | W44463.1 | EST_HUMAN | z228f02.f1 Soares_sarcomatous_fibroblasts_NbHSF Homo sapiens cDNA clone IMAGE:323607 5' |
| 8467 | 21548 | 35078 | 0.58 | 2.0E-21 | AJ010770.1 | NT | Homo sapiens hypoxanthine gene, exons 1-50 |
| 8538 | 21639 | 35178 | 8.13 | 2.0E-21 | BE141783.1 | EST_HUMAN | QV0-HT0103-081199-050-g11 HT0103 Homo sapiens cDNA |
| 9023 | 22102 | 35842 | 3.27 | 2.0E-21 | AU136779.1 | EST_HUMAN | AU136779 PLACE1 Homo sapiens cDNA clone PLACE1005052 5' |
| 11313 | 24377 | | 2.04 | 2.0E-21 | BE350127.1 | EST_HUMAN | h09g01.x1 NCL_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3146256 3' similar to contains MER28.b3 |
| 11569 | 24692 | 36335 | 2.88 | 2.0E-21 | BE973829.1 | EST_HUMAN | MER28 repetitive element : |
| | | | | | | | BD1880636F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:3951008 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 11599 | 24852 | 38336 | 2.88 | 2.0E-21 | BE073829.1 | EST_HUMAN | 60169039F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:3951008 5' |
| 12572 | 26389 | | 6.44 | 2.0E-21 | AF176815.1 | NT | Homo sapiens putative 8-hydroxyguanine DNA glycosylase gene, complete cds |
| 1284 | 14440 | 27509 | 1.89 | 1.0E-21 | AA557657.1 | EST_HUMAN | n44604.s1 NCI_CGAP_P14 Homo sapiens cDNA clone IMAGE:1043718 similar to contains MER20.b2 |
| 1434 | 14937 | | 4.93 | 1.0E-21 | AI601284.1 | EST_HUMAN | MER28 repetitive element |
| 6616 | 19776 | | 2.73 | 1.0E-21 | AL079752.1 | EST_HUMAN | ar88d12.x1 Barstead cclon HPLRB7 Homo sapiens cDNA clone IMAGE:2152343 3' |
| | | | | | | | DKFZp434i0830_r1 434 (synonym: htas3) Homo sapiens cDNA clone DKFZp434i0830 5' |
| 7342 | 20422 | 33885 | 4.7 | 1.0E-21 | AI223104.1 | EST_HUMAN | qg47a05.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1838336 3' similar to gb:U64241 QM |
| 10448 | 23483 | 37092 | 0.47 | 1.0E-21 | AL163203.2 | NT | PROTEIN (HUMAN); |
| 10448 | 23483 | 37093 | 0.47 | 1.0E-21 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 10812 | 23845 | | 1.31 | 1.0E-21 | 5730038 | NT | Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA |
| 13014 | 26687 | | 1.67 | 1.0E-21 | AF046133.1 | NT | Homo sapiens chromosome Xp22 410-8 |
| 4530 | 17868 | 30654 | 2.38 | 9.0E-22 | AI702438.1 | EST_HUMAN | ts94a03.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2286204 3' similar to TR:Q16408 Q16408 |
| 8803 | 21832 | 35420 | 2.02 | 9.0E-22 | AL163201.2 | NT | NEUTRAL PROTEASE LARGE SUBUNIT |
| 8803 | 21832 | 35421 | 2.02 | 9.0E-22 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 11031 | 24110 | 37746 | 3.1 | 9.0E-22 | AV781874.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 12007 | 24992 | 38698 | 1.39 | 9.0E-22 | AI140368.1 | EST_HUMAN | AV781874 MDS Homo sapiens cDNA clone MDSCCG05 5' |
| 971 | 14144 | | 7.93 | 8.0E-22 | BE144748.1 | EST_HUMAN | AJ140358 PLACE2 Homo sapiens cDNA clone PLACE2000394 5' |
| 8080 | 21162 | | 3.36 | 8.0E-22 | AA046502.1 | EST_HUMAN | CN0-HIT0179-281088-076-h05 HT0179 Homo sapiens cDNA |
| 682 | 13867 | 26898 | 3.78 | 7.0E-22 | AL163246.2 | NT | zk67a06.r1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:487858 5' |
| 4388 | 17541 | 30522 | 3.27 | 7.0E-22 | Q61838 | SWISSPROT | Homo sapiens chromosome 21 segment HS21C040 |
| 5150 | 18272 | 31241 | 0.91 | 7.0E-22 | AB008681.1 | NT | ALPHA-2-MACROGLOBULIN PRECURSOR (ALPHA2M) |
| 8888 | 21987 | | 1.24 | 7.0E-22 | AF151054.1 | NT | Homo sapiens gene for activin receptor type IIB, complete cds |
| 9032 | 22111 | 35653 | 2.77 | 7.0E-22 | M78590.1 | EST_HUMAN | Homo sapiens HSPC220 mRNA, complete cds |
| 9802 | 22842 | 38419 | 2.05 | 7.0E-22 | AF009660.1 | NT | EST00738 Fetal brain, Strabagene (cat#38209) Homo sapiens cDNA clone HFBCE07 |
| 8436 | 21517 | | 1.25 | 6.0E-22 | AW029123.1 | EST_HUMAN | Homo sapiens T cell receptor beta locus, TCRBV7S3A2 to TCRBV12S2 region |
| 6848 | 18805 | 33192 | 3.27 | 5.0E-22 | AL163303.2 | NT | wx06g07.x1 NCI_CGAP_Ges4 Homo sapiens cDNA clone IMAGE:2542812 3' |
| 10525 | 23560 | 37167 | 2.98 | 5.0E-22 | U60822.1 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| | | | | | | | Human dystrophin (DMD) gene, exons 7, 8 and 9, and partial cds |
| 12833 | 25556 | | 1.63 | 5.0E-22 | BF476511.1 | EST_HUMAN | naa27b08.x1 NCI_CGAP_P128 Homo sapiens cDNA clone IMAGE:3256898 3' similar to contains Alu |
| 3726 | 16887 | | 0.77 | 4.0E-22 | AJ271735.1 | NT | repetitive element |
| 8608 | 26224 | | 2.81 | 4.0E-22 | AL163202.2 | NT | Homo sapiens Xq pseudautosomal region, segment 1/2 |
| 10981 | 24042 | 37677 | 1.97 | 4.0E-22 | BF218030.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C002 |
| | | | | | | | 601882813F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4096434 5' |

Page 254 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 13021 | 25672 | | 3.85 | 4.0E-22 | AL163209.2 | NT | Human sapiens chromosome 21 segment HS21C009 |
| 981 | 14154 | | 1.34 | 3.0E-22 | AI469879.1 | EST_HUMAN | tm14h10.x1 NCI_CGAP_Co14 Homo sapiens cDNA clone IMAGE:2156811 3' similar to gb:118993 HIGH AFFINITY INTERLEUKIN-8 RECEPTOR B (HUMAN); contains L1 L1 repetitive element; |
| 2636 | 15759 | 28873 | 1.33 | 3.0E-22 | AI859038.1 | EST_HUMAN | w66b04.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2428839 3' similar to SW:RL21_HUMAN |
| 3763 | 16924 | | 1.55 | 3.0E-22 | D14718.1 | NT | P48778 60S RIBOSOMAL PROTEIN L21.; |
| 4922 | 18052 | 31038 | 3.18 | 3.0E-22 | AU09125.1 | EST_HUMAN | Human chromosomal protein HMGI related gene |
| 8011 | 21091 | 34573 | 0.8 | 3.0E-22 | P11369 | SWISSPROT | qb28c07.x1 Soares_pregnant_uterus_NbhPU Homo sapiens cDNA clone IMAGE:1697580 3' similar to contains MER12.12 MER12 repetitive element; |
| 8425 | 21506 | | 1.11 | 3.0E-22 | BET16613.1 | EST_HUMAN | RETROVIRUS-RELATED POLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE; ENDONUCLEASE] |
| 8430 | 21611 | 35042 | 1.88 | 3.0E-22 | BE080841.1 | EST_HUMAN | QV0-HT0368-090200-099-f12 HT0368 Homo sapiens cDNA |
| 8555 | 21636 | 35172 | 1.14 | 3.0E-22 | X60660.1 | NT | RC8-BT0707-150300-021-H10 BT0707 Homo sapiens cDNA |
| 8555 | 21636 | 35173 | 1.14 | 3.0E-22 | X60660.1 | NT | R.rattus RY2G5 mRNA for a potential ligand-binding protein |
| 2008 | 15148 | | 4.04 | 2.0E-22 | N24942.1 | EST_HUMAN | R.rattus RY2G5 mRNA for a potential ligand-binding protein |
| 2590 | 15715 | 28833 | 1.72 | 2.0E-22 | P24916 | SWISSPROT | yk73d05.s1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:267369 3' |
| 3507 | 16874 | 29694 | 3.98 | 2.0E-22 | 8394043 | NT | IMMEDIATE EARLY GENE 13 PROTEIN PRECURSOR |
| 4341 | 17484 | 30468 | 1.41 | 2.0E-22 | AW817794.1 | EST_HUMAN | Homo sapiens protein kinase, AMP-activated, gamma 3 non-catalytic subunit (PRKAG3), mRNA |
| 5973 | 28814 | 32478 | 1.47 | 2.0E-22 | W39453.1 | EST_HUMAN | PM1-ST0262-261199-001-d12 ST0262 Homo sapiens cDNA |
| 6306 | 19478 | 32833 | 3.58 | 2.0E-22 | BF082116.1 | EST_HUMAN | zc20d01.r1 Soares_senescent_fibroblasts_NbHSF Homo sapiens cDNA clone IMAGE:322873 5' similar to gb:XT2308 MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (HUMAN); |
| 8904 | 22944 | 36529 | 1.78 | 2.0E-22 | AI276522.1 | EST_HUMAN | RC0-TN0078-150900-025-h12 TN0078 Homo sapiens cDNA |
| 10001 | 23039 | 36630 | 0.85 | 2.0E-22 | AA715315.1 | EST_HUMAN | q17h08.x1 Soares_NbhMPu_S1 Homo sapiens cDNA clone IMAGE:1876299 3' similar to contains MER29.r3 MER29 repetitive element; |
| 10001 | 23039 | 36631 | 0.85 | 2.0E-22 | AA715315.1 | EST_HUMAN | MER29.r3 MER29 repetitive element; |
| 12058 | 25037 | 38745 | 1.52 | 2.0E-22 | AW418960.1 | EST_HUMAN | nv04h11.s1 NCI_CGAP_P22 Homo sapiens cDNA clone IMAGE:1219269 3' |
| 12139 | 25656 | 31954 | 2.33 | 2.0E-22 | AL163280.2 | NT | nv04h11.s1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2874655 3' |
| 1827 | 15070 | 28175 | 2.05 | 1.0E-22 | AW865517.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C080 |
| 2651 | 16774 | 28887 | 2.36 | 1.0E-22 | U50871.1 | NT | PM4-SN0020-010400-009-h02 SN0020 Homo sapiens cDNA |
| 3497 | 16984 | 29878 | 1.53 | 1.0E-22 | D14547.1 | NT | Human familial Alzheimer's disease (S1M2) gene, complete cds |
| 7920 | 20971 | 34478 | 1.09 | 1.0E-22 | BE084667.1 | EST_HUMAN | Human DNA, SINE repetitive element |
| 10776 | 23609 | 37432 | 1.05 | 1.0E-22 | AI365435.1 | EST_HUMAN | MIR0-BT0659-220200-002-h07 BT0659 Homo sapiens cDNA |
| | | | | | | | q209h07.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2020881 3' similar to contains MER28.b2 |
| | | | | | | | MER29 repetitive element; |

Page 255 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 10776 | 23809 | 37433 | 1.05 | 1.0E-23 | AI365435.1 | EST_HUMAN | qt09507.x1 NCI_CGAP_GLL1 Homo sapiens cDNA clone IMAGE:2020981 3' similar to contains MER29.b2 MER29 repetitive element; |
| 13078 | 25707 | | 12.31 | 8.0E-23 | AW802801.1 | EST_HUMAN | IL2-UM0076-070400-081-F11 UM0076 Homo sapiens cDNA |
| 3681 | 16824 | 29833 | 0.74 | 8.0E-23 | AF198348.1 | NT | Gallus gallus Dach2 protein (Dach2) mRNA, complete cds |
| 3385 | 18555 | | 2.21 | 7.0E-23 | AV647246.1 | EST_HUMAN | AV647246 GLC Homo sapiens cDNA clone GLCAWC07 3' |
| 11293 | 24358 | 38000 | 3.74 | 7.0E-23 | 5031952 | NT | Homo sapiens Nef56 (D. melanogaster)-like protein (NOT56L) mRNA |
| 3520 | 16888 | | 1.83 | 6.0E-23 | AF199333.1 | NT | Rattus norvegicus RIM1B (Rim1B) mRNA, complete cds |
| 4383 | 17828 | 30507 | 1.15 | 6.0E-23 | AL163249.2 | NT | Homo sapiens chromosome 21 segment HS21G049 |
| 12283 | 25211 | 32097 | 4.93 | 6.0E-23 | AF224689.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 |
| 12283 | 25211 | 32098 | 4.93 | 6.0E-23 | AF224688.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 |
| 12483 | 25335 | 32058 | 3.18 | 6.0E-23 | AI209130.1 | EST_HUMAN | (UBE2D3) genes, complete cds (UBE2D3) genes, complete cds |
| | | | | | | | SW/MV10_MOUSE P23249 PROTEIN MOV-10 ; gg69c03.x1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:1830460 3' similar to |
| 5560 | 18767 | 31798 | 4.01 | 5.0E-23 | U82871.2 | NT | Homo sapiens chromosome Xq28 melanoma antigen family A2a (MAGEA2A), melanoma antigen family A12 |
| 6369 | 25824 | 32898 | 3.69 | 5.0E-23 | AF179818.1 | NT | (MAGEA12), melanoma antigen family A2b (MAGEA2B), melanoma antigen family A3 (MAGEA3), catractin |
| 7695 | 26824 | 32898 | 2.78 | 5.0E-23 | AF179818.1 | NT | (CALT), NAD(P)H dehydrogenase-like protein (NSDHL), and L1> |
| 6570 | 16732 | 33110 | 0.67 | 3.0E-23 | AL163227.2 | NT | Pongo pygmaeus olfactory receptor (PPY116) gene, partial cds |
| 6570 | 16732 | 33111 | 0.67 | 3.0E-23 | AL163227.2 | NT | Pongo pygmaeus olfactory receptor (PPY116) gene, partial cds |
| | | | | | | | Homo sapiens chromosome 21 segment HS21G027 |
| | | | | | | | Homo sapiens chromosome 21 segment HS21G027 |
| | | | | | | | 235606.r1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:503988 6' similar to |
| 8022 | 21105 | 34622 | 3.28 | 3.0E-23 | AA130165.1 | EST_HUMAN | contains MER29.12 MER29 repetitive element; |
| 9450 | 22566 | 36130 | 3.72 | 3.0E-23 | Z70684.1 | NT | Human endogenous retroviral element HC2 |
| 9450 | 22566 | 36131 | 3.72 | 3.0E-23 | Z70684.1 | NT | Human endogenous retroviral element HC2 |
| 10523 | 23558 | | 1.42 | 3.0E-23 | AW897827.1 | EST_HUMAN | RC3-NN0066-270400-011-h01 NN0066 Homo sapiens cDNA |
| | | | | | | | Homo sapiens cytochrome P450 polypeptide 43 (CYP3A43) gene, partial cds; cytochrome P450 polypeptide |
| 11372 | 24433 | | 1.35 | 3.0E-23 | AF280107.1 | NT | 4 (CYP3A4) and cytochrome P450 polypeptide 7 (CYP3A7) genes, complete cds; and cytochrome P450 |
| 683 | 13868 | 26809 | 3.69 | 2.0E-23 | AJ289880.1 | NT | polypeptide 5 (CYP3A5) gene, partial cds |
| 1166 | 16988 | | 3.46 | 2.0E-23 | M55270.1 | NT | Homo sapiens KIA0051 gene (partial), X13 gene and LZ1FL1 gene |
| 2656 | 16970 | 25079 | 1 | 2.0E-23 | P22105 | SWISSPROT | Human matrix Gla protein (MGP) gene, complete cds |
| 2856 | 16970 | 25080 | 1 | 2.0E-23 | P22105 | SWISSPROT | TENASCIN-X PRECURSOR (TN-X) (HEXABRACHION-LIKE) |
| | | | | | | | TENASCIN-X PRECURSOR (TN-X) (HEXABRACHION-LIKE) |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 3457 | 16924 | | 1.11 | 2.0E-23 | A1201458.1 | EST_HUMAN | q97311.x1 NCI CGAP_P28 Homo sapiens cDNA clone IMAGE:1943757 3' similar to TR:Q13537 Q13537 MER37 TRANSPARENT ELEMENT, COMPLETE CONSENSUS SEQUENCE. ; |
| 3810 | 16970 | | 3.63 | 2.0E-23 | BE165980.1 | EST_HUMAN | MF3-HT0487-160200-113-g01 HT0487 Homo sapiens cDNA |
| 4085 | 17240 | 30246 | 4.43 | 2.0E-23 | H59931.1 | EST_HUMAN | Y16a02.L1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:205418 5' |
| 4085 | 17240 | 30247 | 4.43 | 2.0E-23 | H59931.1 | EST_HUMAN | Y16a02.L1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:205418 5' |
| | | | | | | | Homo sapiens cytochrome P450 polypeptide 43 (CYP3A43) gene, partial cds; cytochrome P450 polypeptide 4 (CYP3A4) and cytochrome P450 polypeptide 7 (CYP3A7) genes, complete cds; and cytochrome P450 polypeptide 5 (CYP3A5) gene, partial cds |
| 8057 | 21140 | | 5.28 | 2.0E-23 | AF280107.1 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 9044 | 22123 | 35685 | 0.85 | 2.0E-23 | AL163303.2 | NT | Human alcohol dehydrogenase gamma subunit (ADH3) gene, exon 1 |
| 12266 | 26189 | | 6.7 | 2.0E-23 | M32658.1 | NT | Homo sapiens T cell receptor beta locus, TCRBV7S3A2 to TCRBV12S2 region |
| 12844 | 26561 | | 3.68 | 2.0E-23 | AF009660.1 | NT | AU133931 OVARC1 Homo sapiens cDNA clone OVARC1000946 5' |
| 12893 | 26103 | | 2.3 | 2.0E-23 | AU133931.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C052 |
| 4850 | 17786 | 30769 | 1.57 | 1.0E-23 | AL163252.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 4898 | 18018 | | 5.42 | 1.0E-23 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 6861 | 20013 | | 3.27 | 1.0E-23 | BE378471.1 | EST_HUMAN | 601236495F1 NIH_MGC 44 Homo sapiens cDNA clone IMAGE:3608553 5' |
| 8551 | 21632 | 35169 | 4.61 | 1.0E-23 | AA448097.1 | EST_HUMAN | zw82c08.L1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:782698 5' similar to contains PTR5.12 PTR5 repetitive element ; |
| 10909 | 23992 | 37825 | 2.19 | 1.0E-23 | BE409843.1 | EST_HUMAN | 601301762F1 NIH_MGC 21 Homo sapiens cDNA clone IMAGE:3638254 5' |
| 10909 | 23992 | 37826 | 2.19 | 1.0E-23 | BE409843.1 | EST_HUMAN | 601301762F1 NIH_MGC 21 Homo sapiens cDNA clone IMAGE:3638254 5' |
| 13082 | 26074 | 31654 | 1.35 | 1.0E-23 | AW801816.1 | EST_HUMAN | QVQ-NN1020-170400-185-e11 NN1020 Homo sapiens cDNA |
| | | | | | | | ab75a08.s1 Stralagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:852758 3' similar to TR:E19822 E19822 CA PROTEIN ; |
| 566 | 13753 | | 1.97 | 9.0E-24 | AA669213.1 | EST_HUMAN | OLFACTORY RECEPTOR-LIKE PROTEIN 13 |
| 4771 | 17903 | 30888 | 1.12 | 8.0E-24 | P23269 | SWISSPROT | OLFACTORY RECEPTOR-LIKE PROTEIN 13 |
| 4771 | 17903 | 30889 | 1.12 | 8.0E-24 | P23269 | SWISSPROT | Homo sapiens capping protein (actin filament) muscle Z-line, alpha 2 (CAPZA2), mRNA |
| 6578 | 19740 | 33121 | 0.95 | 8.0E-24 | | NT | Homo sapiens capping protein (actin filament) muscle Z-line, alpha 2 (CAPZA2), mRNA |
| 3976 | 17133 | | 0.94 | 7.0E-24 | AW937954.1 | EST_HUMAN | QVQ-DT0047-170200-122-e06 DT0047 Homo sapiens cDNA |
| 5281 | 18400 | | 18.79 | 7.0E-24 | AL039498.1 | EST_HUMAN | DKFZp434A2311.1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434A2311 5' |
| 10878 | 23981 | | 1.81 | 7.0E-24 | AW303317.1 | EST_HUMAN | xv1703.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone DKFZp434A2311 5' |
| 724 | 13906 | | 2.21 | 8.0E-24 | AB001421.1 | NT | repetitive element; contains MER19.12 MER19 repetitive element ; |
| 881 | 14038 | 27100 | 12.8 | 8.0E-24 | AL163249.2 | NT | Mecaca fuscata mRNA for Testis-Specific Protein Y (TSPY), complete cds |
| 4078 | 17234 | 30241 | 9.39 | 5.0E-24 | AJ229043.1 | NT | Homo sapiens chromosome 21 segment HS21C049 |
| | | | | | | | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22, segment 3/3 |
| 7835 | 20985 | 34493 | 1.27 | 5.0E-24 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |

Page 257 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 4371 | 17614 | | 0.9 | 4.0E-24 | BF369469.1 | EST_HUMAN | RCO-GN0080-250900-022-M9 GN0080 Homo sapiens cDNA |
| 6052 | 19234 | 32559 | 2.77 | 4.0E-24 | AA594178.1 | EST_HUMAN | nm31h05.a1 NCI CGAP_Gas1 Homo sapiens cDNA clone IMAGE:1085529 3' similar to SW:POL_MLVRK |
| 8880 | 21059 | 35494 | 0.71 | 4.0E-24 | AW813711.1 | EST_HUMAN | P31795 POL POLYPROTEIN: |
| 11464 | 24514 | 38182 | 2.05 | 4.0E-24 | BE544822.1 | EST_HUMAN | RC3-ST0197-130100-014-06 ST0197 Homo sapiens cDNA |
| 12669 | 25448 | 32054 | 4.02 | 4.0E-24 | AB028016.1 | NT | 601078812F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3464488 5' |
| | | | | | | | Homo sapiens mRNA for KIAA1093 protein, partial cds |
| 7229 | 20134 | 33551 | 0.73 | 3.0E-24 | U66081.1 | NT | Human germline T-cell receptor beta chain TCRBV17S1A1T, TCRBV2S1, TCRBV10S1P, TCRBV28S1P, TCRBV18S1P, TCRBV15S1, TCRBV14S1A1T, HVB relic, TCRBV28S1P, TCRBV34S1, TCRBV14S1, TCRBV3S1, TCRBV4S1A1T, TRY4, TRY6, TRY7, TRY8, TCRBD1, TCRBJ1S1, TCRBJ1S2> |
| 7229 | 20134 | 33552 | 0.73 | 3.0E-24 | U66081.1 | NT | Human germline T-cell receptor beta chain TCRBV17S1A1T, TCRBV2S1, TCRBV10S1P, TCRBV28S1P, TCRBV18S1P, TCRBV15S1, TCRBV14S1A1T, HVB relic, TCRBV28S1P, TCRBV34S1, TCRBV14S1, TCRBV3S1, TCRBV4S1A1T, TRY4, TRY6, TRY7, TRY8, TCRBD1, TCRBJ1S1, TCRBJ1S2> |
| 8618 | 21698 | | 2.94 | 3.0E-24 | AW614871.1 | EST_HUMAN | h168c08.x1 NCI CGAP_GU1 Homo sapiens cDNA clone IMAGE:2987850 3' similar to contains MER28.b2 |
| 8873 | 21763 | | 1.24 | 3.0E-24 | AW982078.1 | EST_HUMAN | MER29 repetitive element: |
| 9865 | 22827 | 36108 | 3.79 | 3.0E-24 | AL183262.2 | NT | EST374149 MAGG Homo sapiens cDNA |
| 12756 | 25501 | 32034 | 1.34 | 3.0E-24 | BF127782.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C052 |
| 2422 | 15551 | 28678 | 2.55 | 2.0E-24 | AA187639.1 | EST_HUMAN | 601810449F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4053398 5' |
| 3899 | 17058 | | 0.82 | 2.0E-24 | AW698189.1 | EST_HUMAN | zp1109.r1 Strategene fetal retina 037202 Homo sapiens cDNA clone IMAGE:509181 5' |
| 7515 | 28219 | | 0.63 | 2.0E-24 | AL183209.2 | NT | RC3-NN0088-090500-021-503 NN0088 Homo sapiens cDNA |
| 7643 | 20712 | 34191 | 0.9 | 2.0E-24 | AF088824.1 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 7648 | 20717 | 34194 | 0.58 | 2.0E-24 | AJ003538.1 | EST_HUMAN | Mus musculus rho/tau-interacting citron kinase (Crik) mRNA, complete cds |
| 8938 | 22017 | 35569 | 3.81 | 2.0E-24 | AL118158.1 | EST_HUMAN | AL003536 Selected chromosome 21 cDNA library Homo sapiens cDNA clone MP1212-6H13 |
| 8977 | 22056 | | 0.9 | 2.0E-24 | H69214.1 | EST_HUMAN | DKFZp761L1712_r1 781 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761L1712 5' |
| 10058 | 23098 | 36888 | 1.08 | 2.0E-24 | A1621759.1 | EST_HUMAN | Y82809.r1 Soares fetal liver spleen 1NFS Homo sapiens cDNA clone IMAGE:212729 5' similar to contains |
| 10058 | 23098 | 36899 | 1.08 | 2.0E-24 | A1621759.1 | EST_HUMAN | MER28 repetitive element: |
| 12580 | 26153 | | 21.43 | 2.0E-24 | M28877.1 | NT | h177a08.x1 NCI CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2138008 3' |
| 1751 | 14881 | 27972 | 4.81 | 1.0E-24 | 7708340 | NT | h177a09.x1 NCI CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2138008 3' |
| 2738 | 15855 | | 1.65 | 1.0E-24 | AW820184.1 | EST_HUMAN | Human O family dispersed repeat element |
| 3085 | 16261 | 29278 | 0.72 | 1.0E-24 | D86423.1 | NT | Homo sapiens OGI-127 protein (LOC81646), mRNA |
| 4385 | 17628 | | 1.93 | 1.0E-24 | AF143313.1 | NT | QV0-S10284-100400-185-c10 ST0284 Homo sapiens cDNA |
| | | | | | | | Mus musculus mRNA for HGT keratin, partial cds |
| | | | | | | | Homo sapiens PTEN (PTEN) gene, exon 2 |

Page 258 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Description |
|------------------------|-----------------------|-------------------|----------------------|---|-----------------------------|-------------------------------|---|
| 6531 | 18695 | 33083 | 1.13 | 1.0E-24 | 7106338 | NT | Mus musculus keratin complex-1, gene C29 (Krt1-c29), mRNA |
| 7720 | 20784 | 34272 | 4.85 | 1.0E-24 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 7907 | 20959 | 34485 | 5.07 | 1.0E-24 | BE144526.1 | EST_HUMAN | MRQ-HT0168-271189-005-409 HT0168 Homo sapiens cDNA |
| 8130 | 21212 | 34732 | 2.28 | 1.0E-24 | AW601164.1 | EST_HUMAN | CMQ-NN1010-130300-281-d07 NN1010 Homo sapiens cDNA |
| 11889 | 24884 | 36689 | 1.37 | 9.0E-25 | 7708707 | NT | Homo sapiens putative secreted protein (SIGT1), mRNA |
| 5111 | 18239 | 31208 | 2.7 | 7.0E-25 | AA483944.1 | EST_HUMAN | ne2e10 s1 NCL_CGAP_Kid1 Homo sapiens cDNA clone IMAGE:911764 similar to contains MER1.b2 MER1 repetitive element; |
| 8413 | 21484 | 35025 | 3.7 | 7.0E-25 | AA488846.1 | EST_HUMAN | ne08a09 s1 NCL_CGAP_Gc3 Homo sapiens cDNA clone IMAGE:880408 3' similar to contains THR.b2 THR repetitive element; |
| 12003 | 24988 | 36693 | 3.64 | 7.0E-25 | AA583540.1 | EST_HUMAN | n25h09 s1 NCL_CGAP_Py1 Homo sapiens cDNA clone IMAGE:914843 similar to SW:R14A_YEAST P38105 PROBABLE 60S RIBOSOMAL PROTEIN L14EA.1 |
| 7839 | 20951 | 34458 | 11.72 | 6.0E-25 | W67623.1 | EST_HUMAN | 2h65h07.r1 Scarses fetal liver spleen _INFLS_S1 Homo sapiens cDNA clone IMAGE:416989 5' |
| 1683 | 14835 | 27920 | 1.61 | 5.0E-25 | AW50271.1 | EST_HUMAN | Mus musculus otogelin (Otog), mRNA |
| 11566 | 24849 | 38333 | 3.12 | 5.0E-25 | AW978107.1 | EST_HUMAN | IL3-CT0219-161199-031-D04 CT0219 Homo sapiens cDNA |
| 1479 | 14631 | 27716 | 2.96 | 4.0E-25 | T88107.1 | EST_HUMAN | EST391217 MAGC resequences, MAGP Homo sapiens cDNA |
| 3489 | 16558 | | 2.81 | 4.0E-25 | AW887671.1 | EST_HUMAN | ye56h04.r1 Scarses fetal liver spleen _INFLS_Homo sapiens cDNA clone IMAGE:121783 5' |
| 4436 | 17576 | | 4.06 | 4.0E-25 | BE170987.1 | EST_HUMAN | PM3-OT0093-280200-001-g07 OT0093 Homo sapiens cDNA |
| 10144 | 23182 | 38779 | 0.83 | 4.0E-25 | AA383873.1 | EST_HUMAN | GIV3-HT0543-140400-149-e11 HT0543 Homo sapiens cDNA |
| 2266 | 16389 | 28618 | 1.02 | 3.0E-25 | BE068922.1 | EST_HUMAN | EST197317 Thymus 1 Homo sapiens cDNA 5' end similar to EST containing O family repeat |
| 3399 | 18500 | 29581 | 3.12 | 3.0E-25 | 8923321 | NT | RC5-BT0377-131299-031-F02 BT0377 Homo sapiens cDNA |
| 3396 | 16566 | 29862 | 3.12 | 3.0E-25 | 8923321 | NT | Homo sapiens hypothetical protein FLJ20344 (FLJ20344), mRNA |
| 6015 | 18144 | 31119 | 0.7 | 3.0E-25 | P29822 | SWISSPROT | Homo sapiens hypothetical protein FLJ20344 (FLJ20344), mRNA |
| 8632 | 21613 | 35149 | 6.42 | 3.0E-25 | AL163210.2 | NT | KALLISTATIN PRECURSOR (KALLIKREIN INHIBITOR) (PROTEASE INHIBITOR 4) |
| 11287 | 24353 | 37993 | 2.7 | 3.0E-26 | AA578013.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C010 |
| 1378 | 14553 | 27607 | 4.9 | 2.0E-25 | 6032168 | NT | nr30h10.s1 NCL_CGAP_Py1 Homo sapiens cDNA clone IMAGE:815331 similar to contains L1.1 L1 repetitive element; |
| 2382 | 15513 | 28641 | 7.33 | 2.0E-25 | BE888016.1 | EST_HUMAN | Homo sapiens transducin (beta)-like 1 (TBL1) mRNA |
| 2893 | 15731 | 28848 | 3.71 | 2.0E-25 | P17008 | SWISSPROT | 601511530FT NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913087 5' |
| 4307 | 17450 | 30436 | 1.61 | 2.0E-25 | P17008 | SWISSPROT | 40S RIBOSOMAL PROTEIN S16 |
| 4307 | 17460 | 30437 | 1.61 | 2.0E-25 | P17008 | SWISSPROT | 40S RIBOSOMAL PROTEIN S16 |
| 9967 | 23066 | 36801 | 2.13 | 2.0E-25 | AL449573.1 | EST_HUMAN | 40S RIBOSOMAL PROTEIN S16 |
| 375 | 13583 | 28617 | 0.81 | 1.0E-25 | AL040229.1 | EST_HUMAN | AL449573 Homo sapiens Testis (Stearides GS) Homo sapiens cDNA |
| 1277 | 14434 | | 2.07 | 1.0E-25 | 9835487 | NT | DKFZp434H0313_r1 434 (synonym: hhes3) Homo sapiens cDNA clone DKFZp434H0313 5' |
| | | | | | | | Human endogenous retrovirus, complete genome |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 4983 | 18112 | 31089 | 2.71 | 1.0E-25 | BE162737.1 | EST_HUMAN | PM1-HT0454-080100-002-h09 HT0454 Homo sapiens cDNA |
| 5298 | 18415 | 31383 | 1.16 | 1.0E-25 | 8923786 | NT | Homo sapiens HSPC069 protein (HSPC069), mRNA |
| 5298 | 18415 | 31384 | 1.16 | 1.0E-25 | 8923786 | NT | Homo sapiens HSPC069 protein (HSPC069), mRNA |
| 6997 | 19855 | | 0.95 | 1.0E-25 | AA189080.1 | EST_HUMAN | z44806.s1 Stratiagene HNT neuron (#937233) Homo sapiens cDNA clone IMAGE:632627 3' similar to contains Alu repetitive element |
| 6996 | 25838 | 33683 | 2.95 | 1.0E-25 | AA568260.1 | EST_HUMAN | nm54h11.s1 NCI CGAP_Kid8 Homo sapiens cDNA clone IMAGE:1087749 3' |
| 8098 | 21180 | 34698 | 3.58 | 1.0E-25 | AA709079.1 | EST_HUMAN | z08304.s1 Soares_fetal_heart_Nb-H16W Homo sapiens cDNA clone IMAGE:384822 3' similar to contains PTR6.13 PTR6 repetitive element |
| 9746 | 22810 | 36388 | 1.32 | 1.0E-25 | X60660.1 | NT | Rattus RY2G5 mRNA for a potential ligand-binding protein |
| 9746 | 22810 | 36389 | 1.32 | 1.0E-25 | X60660.1 | NT | Rattus RY2G5 mRNA for a potential ligand-binding protein |
| 11212 | 24281 | 37920 | 3.11 | 1.0E-25 | U63163.1 | NT | Homo sapiens IMAGE-B2 (IMAGE-B2), IMAGE-B3 (IMAGE-B3), IMAGE-B4 (IMAGE-B4), and IMAGE-B1 (IMAGE-B1) genes, complete cds |
| 12280 | 25209 | 38364 | 1.62 | 1.0E-25 | D14547.1 | NT | Human DNA, SINE repetitive element |
| 12280 | 25209 | 38365 | 1.62 | 1.0E-25 | D14547.1 | NT | Human DNA, SINE repetitive element |
| 2553 | 15678 | 28802 | 1.94 | 9.0E-26 | AL163218.2 | NT | Homo sapiens chromosome 21 segment HS21C018 |
| 11282 | 24321 | | 2.35 | 9.0E-26 | AL605368.1 | EST_HUMAN | GV-BT087-301289-008 BT087 Homo sapiens cDNA |
| 12140 | 25901 | | 5.33 | 9.0E-26 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C086 |
| 6811 | 19001 | | 1.51 | 8.0E-26 | D14547.1 | NT | Human DNA, SINE repetitive element |
| 1808 | 14761 | 27840 | 5.61 | 7.0E-26 | AF003528.1 | NT | Homo sapiens X-linked anhidrotic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 4089 | 17244 | 30251 | 1.68 | 7.0E-26 | X89211.1 | NT | H. sapiens DNA for endogenous retroviral like element |
| 4275 | 17420 | 30407 | 1.92 | 7.0E-26 | AW340163.1 | EST_HUMAN | hd02e12.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2808366 3' |
| 5755 | 18947 | 32249 | 0.84 | 7.0E-26 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 11866 | 24651 | | 6.85 | 7.0E-26 | AA115895.1 | EST_HUMAN | zn30408.r1 Stratiagene neuroepithelium NT2RAMI 937234 Homo sapiens cDNA clone IMAGE:548943 5' similar to gb:M14338 VITAMIN K-DEPENDENT PROTEIN S PRECURSOR (HUMAN); |
| 12901 | 25598 | | 5.49 | 7.0E-26 | AW954559.1 | EST_HUMAN | EST1386629 IMAGE resequences, MAGC Homo sapiens cDNA |
| 2300 | 16432 | 28565 | 3.83 | 8.0E-26 | AF026308.1 | NT | Homo sapiens chromosome 9 duplication of the T cell receptor beta locus and tyrosinogen gene families |
| 3427 | 16595 | 29811 | 0.69 | 6.0E-26 | AA208131.1 | EST_HUMAN | zq52h04.r1 Stratiagene neuroepithelium (#937231) Homo sapiens cDNA clone IMAGE:946271 5' |
| 10763 | 23786 | 37400 | 0.62 | 6.0E-26 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 10763 | 23786 | 37401 | 0.62 | 6.0E-26 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 11979 | 24964 | 38665 | 2.15 | 8.0E-26 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 1204 | 14366 | 27426 | 0.89 | 6.0E-26 | AI708235.1 | EST_HUMAN | as38h08.x1 Barstead aorta HPLRB6 Homo sapiens cDNA clone IMAGE:2319519 3' similar to WP:F49C12.11 CE03371; |

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 1204 | 14366 | 27427 | 0.89 | 5.0E-26 | AI708235.1 | EST_HUMAN | aa38h08.x1 Barstead acta HP_LRB8 Homo sapiens cDNA clone IMAGE:2319519 3' similar to WP:F49C12.11 CE03371; |
| 9612 | 22667 | | 3.29 | 4.0E-26 | 7657670 | NT | Homo sapiens upstream binding transcription factor, RNA polymerase I (UBTF), mRNA |
| 10897 | 23981 | 37613 | 2.84 | 4.0E-26 | BE266187.1 | EST_HUMAN | G01191345F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3536210 5' |
| 11604 | 24657 | 38342 | 1.38 | 4.0E-26 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 1797 | 14946 | 28038 | 1.25 | 3.0E-26 | D14547.1 | NT | Human DNA, SINE repetitive element |
| 2059 | 15200 | 28314 | 1.14 | 3.0E-26 | AL046865.2 | EST_HUMAN | DKFZp4340568_r1 434 (synonym: hbs3) Homo sapiens cDNA clone DKFZp4340568 5' |
| 2088 | 15228 | | 3.34 | 3.0E-26 | AA116896.1 | EST_HUMAN | zn30408.r1 Stratiene neuroepithelium NT2RAM1 837234 Homo sapiens cDNA clone IMAGE:548943 5' |
| 3878 | 17037 | 30035 | 1.41 | 3.0E-26 | AA152484.1 | EST_HUMAN | similar to gb:AM14338 VITAMIN K-DEPENDENT PROTEIN S PRECURSOR (HUMAN); zn30408.r1 Stratiene cdon (#937204) Homo sapiens cDNA clone IMAGE:588427 5' similar to TR:G895374 |
| 3878 | 17037 | 30035 | 1.41 | 3.0E-26 | AA152484.1 | EST_HUMAN | G895374 THYROID RECEPTOR INTERACTOR; |
| 7051 | 20104 | 33521 | 6.09 | 3.0E-26 | AA162484.1 | EST_HUMAN | zn30408.r1 Stratiene cdon (#937204) Homo sapiens cDNA clone IMAGE:588427 5' similar to TR:G895374 |
| 11867 | 24855 | 38551 | 1.97 | 3.0E-26 | AW876651.1 | EST_HUMAN | G895374 THYROID RECEPTOR INTERACTOR; |
| 11867 | 24855 | 38551 | 1.97 | 3.0E-26 | AW876651.1 | EST_HUMAN | G895374 THYROID RECEPTOR INTERACTOR; |
| 11902 | 24890 | 38591 | 7.79 | 3.0E-26 | AA583173.1 | EST_HUMAN | G01894963F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4083278 5' |
| 699 | 13982 | 28916 | 6.84 | 2.0E-26 | AL163282.2 | NT | QV2-PT0012-040400-124-e05 PT0012 Homo sapiens cDNA |
| 1917 | 15060 | | 3.07 | 2.0E-26 | AL038089.2 | EST_HUMAN | QV2-PT0012-040400-124-e05 PT0012 Homo sapiens cDNA |
| 3303 | 18477 | 29499 | 5.22 | 2.0E-26 | X86694.1 | NT | QV2-PT0012-040400-124-e05 PT0012 Homo sapiens cDNA |
| 10991 | 24070 | | 1.93 | 2.0E-26 | D87675.1 | NT | rn37405.s1 NCL_CGAP_GC5 Homo sapiens cDNA clone IMAGE:1086057 3' similar to contains OFR.L1 |
| 11493 | 24551 | 38226 | 2.96 | 2.0E-26 | AI801412.1 | EST_HUMAN | OFI repetitive element; |
| 11704 | 24701 | | 2.06 | 2.0E-26 | AF055086.1 | NT | Homo sapiens chromosome 21 segment HS21C082 |
| 12389 | 25276 | | 1.76 | 2.0E-26 | AB03789.1 | NT | DKFZp5668.171_s1 586 (synonym: hfk42) Homo sapiens cDNA clone DKFZp5668.171 3' |
| 12604 | 26088 | 31658 | 2.33 | 2.0E-26 | 11435947 | NT | Musculus mRNA for astrocytic phosphoprotein, PEA-15 |
| 139 | 13365 | 28398 | 8.96 | 1.0E-26 | BE170371.1 | EST_HUMAN | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 2105 | 16244 | 28365 | 1.42 | 1.0E-26 | AL039383.2 | EST_HUMAN | to86a01.x1 NCL_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2185416 3' similar to contains Alu repetitive element; contains element MER20 MER20 repetitive element; |
| 2751 | 15868 | | 6.28 | 1.0E-26 | AF261085.1 | NT | Homo sapiens MHC class 1 region |
| 6980 | 20208 | | 2.89 | 1.0E-26 | BE165980.1 | EST_HUMAN | Homo sapiens mRNA for KIAA1438 protein, partial cds |
| 11131 | 24203 | | 1.95 | 1.0E-26 | AL038487.1 | EST_HUMAN | Homo sapiens chromosome 12 open reading frame 3 (C12ORF3), mRNA |
| 12655 | 25178 | | 2.77 | 1.0E-26 | H65093.1 | EST_HUMAN | QV4-HT0538-020300-123-a02 HT0538 Homo sapiens cDNA |
| 13176 | 25763 | | 1.18 | 1.0E-26 | AW408742.1 | EST_HUMAN | DKFZp434H1910_r1 434 (synonym: hbs3) Homo sapiens cDNA clone DKFZp434H1910 5' |
| | | | | | | | Homo sapiens glyceraldehyde-3-phosphate dehydrogenase (GADPH) mRNA, complete cds |
| | | | | | | | MR3-HT0487-160200-113-g01 HT0487 Homo sapiens cDNA |
| | | | | | | | DKFZp566C2146_r1 568 (synonym: hfk42) Homo sapiens cDNA clone DKFZp566C2146 5' |
| | | | | | | | CHR220032 Chromosome 22 exon Homo sapiens cDNA clone C22_45 5' |
| | | | | | | | UIHIF-BMD-edw-4-10-0-JL1 NIH_MGC_38 Homo sapiens cDNA clone IMAGE:3063210 5' |

Page 281 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 7757 | 20816 | | 0.87 | 9.0E-27 | BF371227.1 | EST_HUMAN | RC6-FN0138-110800-022-A02 FN0138 Homo sapiens cDNA |
| 9603 | 22769 | | 5.02 | 9.0E-27 | U93163.1 | NT | Homo sapiens IMAGE-B2 (IMAGE-B2), IMAGE-B3 (IMAGE-B3), IMAGE-B4 (IMAGE-B4), and IMAGE-B1 (IMAGE-B1) genes, complete cds |
| 12143 | 25118 | | 6.5 | 9.0E-27 | BF445666.1 | EST_HUMAN | nao3c07.x1 NCL_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:3253644 3' similar to contains OFR.L1 |
| 11 | 13249 | 26249 | 4.22 | 8.0E-27 | AI831462.1 | EST_HUMAN | OFR repetitive element 1 |
| 571 | 13763 | | 4.57 | 8.0E-27 | AL163227.2 | NT | w46004.x1 NCL_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2406150 3' similar to contains THR.b2 THR repetitive element 1 |
| 1448 | 14601 | 27678 | 23.84 | 8.0E-27 | AW162737.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C027 |
| 1448 | 14601 | 27679 | 23.84 | 8.0E-27 | AW162737.1 | EST_HUMAN | au87h08.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2783295 3' similar to gb:K00558 |
| 2236 | 16369 | 28499 | 1.82 | 8.0E-27 | AW864776.1 | EST_HUMAN | TUBULIN ALPHA-1 CHAIN (HUMAN); au87h08.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2783295 3' similar to gb:K00558 |
| 3254 | 16428 | 29446 | 1.8 | 8.0E-27 | P12238 | SWISSPROT | TUBULIN ALPHA-1 CHAIN (HUMAN); au87h08.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2783295 3' similar to gb:K00558 |
| 3434 | 16602 | 29621 | 0.75 | 8.0E-27 | AF181897.1 | NT | PM2-SN0018-220300-002-e07 SN0018 Homo sapiens cDNA |
| 5812 | 18002 | 32308 | 1.07 | 8.0E-27 | AV732214.1 | EST_HUMAN | ADP-ATP CARRIER PROTEIN, LIVER ISOFORM T2 (ADP/ATP TRANSLOCASE 3) (ADENINE NUCLEOTIDE TRANSLOCATOR 3) (ANT 3) |
| 7117 | 18543 | | 2.95 | 8.0E-27 | BE926690.1 | EST_HUMAN | Homo sapiens WRN (WRN) gene, complete cds |
| 7192 | 20057 | 33467 | 2.49 | 8.0E-27 | N84970.1 | EST_HUMAN | AV732214 HTF Homo sapiens cDNA clone HTFBCB08 5' |
| 9410 | 22484 | 36048 | 1.93 | 8.0E-27 | AW857579.1 | EST_HUMAN | MR4-BT0398-260800-204-d08 BT0398 Homo sapiens cDNA |
| 9410 | 22484 | 36049 | 1.93 | 8.0E-27 | AW857579.1 | EST_HUMAN | J1751F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone J1751 5' similar to |
| 701 | 13884 | | 1.77 | 7.0E-27 | Z70694.1 | NT | REPEATITIVE ELEMENT L1 |
| 5201 | 18322 | | 2.19 | 7.0E-27 | AW629172.1 | EST_HUMAN | GM1-CT0315-091299-063-d07 CT0315 Homo sapiens cDNA |
| 9058 | 22137 | | 0.97 | 7.0E-27 | D86984.1 | NT | GM1-CT0315-091299-063-d07 CT0315 Homo sapiens cDNA |
| 10988 | 24067 | | 3.7 | 7.0E-27 | AJ271735.1 | NT | Human endogenous retroviral element HC2 |
| 10984 | 24045 | 37679 | 3.21 | 6.0E-27 | M26697.1 | NT | h51h12.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2976879 3' similar to TR:O76040 |
| 12094 | 25074 | 38781 | 1.55 | 6.0E-27 | U93163.1 | NT | O76040 ORF2: FUNCTION UNKNOWN ; Human mRNA for KIAA0231 gene, partial cds |
| 7864 | 21004 | | 0.73 | 5.0E-27 | AL163303.2 | NT | Homo sapiens Xq pseudautosomal region, segment 1/2 |
| 10442 | 23477 | 37081 | 3.21 | 5.0E-27 | BF666614.1 | EST_HUMAN | Human nuclear protein (B23) mRNA, complete cds |
| 10442 | 23477 | 37092 | 3.21 | 5.0E-27 | BF666614.1 | EST_HUMAN | Homo sapiens IMAGE-B2 (IMAGE-B2), IMAGE-B3 (IMAGE-B3), IMAGE-B4 (IMAGE-B4), and IMAGE-B1 (IMAGE-B1) genes, complete cds |
| 6883 | 20035 | 33444 | 1.65 | 4.0E-27 | 9910599 | NT | Homo sapiens chromosome 21 segment HS21C103 602121491F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4278527 5' |
| | | | | | | | 602121491F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4278527 5' |
| | | | | | | | Mus musculus sperm tail associated protein (Slap), mRNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8123 | 21207 | | 0.98 | 4.0E-27 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 8172 | 21254 | | 1.31 | 4.0E-27 | AF078779.1 | NT | Rattus norvegicus putative four repeat ion channel mRNA, complete cds |
| 8945 | 22884 | 36577 | 0.61 | 4.0E-27 | AW880859.1 | EST_HUMAN | QVO-OT0033-070300-152-b10 OT0033 Homo sapiens cDNA |
| 11803 | 24891 | 38592 | 2.62 | 4.0E-27 | X89211.1 | NT | H. sapiens DNA for endogenous retroviral like element |
| 13213 | 26080 | 31655 | 1.17 | 4.0E-27 | AL163279.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 2098 | 15239 | 28381 | 7.1 | 3.0E-27 | X00658.1 | NT | R. rattus RYA3 mRNA for a potential ligand-binding protein |
| 4388 | 17829 | 30510 | 1.55 | 3.0E-27 | BE071924.1 | EST_HUMAN | PW0-BT0527-080100-001-d11 BT0527 Homo sapiens cDNA |
| 5482 | 18682 | 31641 | 6.81 | 3.0E-27 | AA077705.1 | EST_HUMAN | 7B44C08 Chromosome 7 Fetal Brain cDNA Library/Homo sapiens cDNA clone 7B44C08 |
| 8505 | 22771 | 36342 | 3.49 | 3.0E-27 | BF035327.1 | EST_HUMAN | 601456531F1 NIH_MGC 69 Homo sapiens cDNA clone IMAGE:3802086 5' |
| 42 | 13280 | 26288 | 9.28 | 2.0E-27 | AF094187.1 | NT | Homo sapiens alpha NAG mRNA, complete cds |
| 1944 | 15087 | | 24.24 | 2.0E-27 | AA565345.1 | EST_HUMAN | ntk01b10.s1 NCL_CGAP_P111 Homo sapiens cDNA clone IMAGE:1000689 similar to gb:M17886 60S |
| 3178 | 18363 | | 13.34 | 2.0E-27 | AW628172.1 | EST_HUMAN | h151h12.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2875879 3' similar to TR:O78040 |
| 3296 | 18470 | 29489 | 1.45 | 2.0E-27 | AF111187.2 | NT | Homo sapiens jun dimerization protein gene, partial cds; cfos gene, complete cds; and unknown gene |
| 3296 | 18470 | 29490 | 1.45 | 2.0E-27 | AF111187.2 | NT | Homo sapiens jun dimerization protein gene, partial cds; cfos gene, complete cds; and unknown gene |
| 6814 | 19897 | 33373 | 0.79 | 2.0E-27 | H02655.1 | EST_HUMAN | y35e01.r1 Soares placenta Nb2-IP Homo sapiens cDNA clone IMAGE:150840 5' similar to |
| 8282 | 21384 | 34883 | 1.17 | 2.0E-27 | A1866347.1 | EST_HUMAN | SP:HMGC_MOUSE Q02581 HOMEBOX PROTEIN ; |
| 9466 | 22526 | | 2.5 | 2.0E-27 | AA551527.1 | EST_HUMAN | w128g07.x1 NCL_CGAP_U11 Homo sapiens cDNA clone IMAGE:2426268 3' |
| 9895 | 23033 | 36525 | 0.83 | 2.0E-27 | X60858.1 | NT | h03h05.s1 NCL_CGAP_Thy1 Homo sapiens cDNA clone IMAGE:943737 similar to contains L1.13 L1 repetitive element ; |
| 10241 | 23276 | 36868 | 1.45 | 2.0E-27 | M78590.1 | EST_HUMAN | R. rattus RYA3 mRNA for a potential ligand-binding protein |
| 10241 | 23276 | 36869 | 1.45 | 2.0E-27 | M78590.1 | EST_HUMAN | ESTT00738 Fetal brain, Striatum (cat#936206) Homo sapiens cDNA clone HFBFCF07 |
| 11197 | 24288 | 37901 | 3.61 | 2.0E-27 | AU121685.1 | EST_HUMAN | ESTT00738 Fetal brain, Striatum (cat#936206) Homo sapiens cDNA clone HFBFCF07 |
| 11777 | 15087 | | 6.43 | 2.0E-27 | AA565345.1 | EST_HUMAN | AU121685 MAMMA1 Homo sapiens cDNA clone MAMMA1000746 5' |
| 12107 | 26087 | 38791 | 1.64 | 2.0E-27 | AF216650.1 | NT | h01b10.s1 NCL_CGAP_P111 Homo sapiens cDNA clone IMAGE:1000689 similar to gb:M17886 60S |
| 449 | 13845 | | 2.34 | 1.0E-27 | AL163248.2 | NT | ACIDIC RIBOSOMAL PROTEIN P1 (HUMAN); |
| 1021 | 14192 | 27251 | 4.97 | 1.0E-27 | AB025898.1 | NT | Homo sapiens putative MTAP (MTAP) mRNA, partial cds, alternatively spliced |
| 8874 | 18833 | 33222 | 6.51 | 1.0E-27 | 6005855 | NT | Homo sapiens chromosome 21 segment HS21C049 |
| | | | | | | | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| | | | | | | | Homo sapiens Retina-derived POU-domain factor-1 (RPF-1), mRNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 7010 | 20146 | 33666 | 1.65 | 1.0E-27 | F30158.1 | EST_HUMAN | HSPD20461 HM3 Homo sapiens cDNA clone s4000095C10 |
| 7010 | 20146 | 33667 | 1.85 | 1.0E-27 | F30158.1 | EST_HUMAN | HSPD20461 HM3 Homo sapiens cDNA clone s4000095C10 |
| 8809 | 21888 | 35430 | 1.16 | 1.0E-27 | AB007923.1 | NT | Homo sapiens mRNA for KIAA0454 protein, partial cds |
| 9186 | 22264 | | 1.69 | 1.0E-27 | BE079780.1 | EST_HUMAN | RC6-BT0827-140200-011-E06 BT0827 Homo sapiens cDNA |
| 9923 | 22663 | 36551 | 2.65 | 1.0E-27 | D87449.1 | NT | Human mRNA for KIAA0260 gene, partial cds |
| 12005 | 24990 | 38694 | 3.05 | 1.0E-27 | AF111093.1 | NT | Bos taurus latrophilin 3 splice variant bbat mRNA, complete cds |
| 144 | 13368 | | 2.26 | 9.0E-28 | BE348309.1 | EST_HUMAN | hwt7c11.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3183188 3' similar to TR:Q07314 Q07314 |
| 321 | 13335 | 26667 | 2.17 | 9.0E-28 | AU126280.1 | EST_HUMAN | SECRETED NEUREXIN III-ALPHA-C PRECURSOR, [3] TR:Q07280 TR:Q07313; |
| 10601 | 23636 | 37243 | 0.47 | 9.0E-28 | AA174078.1 | EST_HUMAN | AU126260 NT2RP1 Homo sapiens cDNA clone NT2RP1000443 5' |
| 12224 | 25173 | | 3.04 | 9.0E-28 | BF377859.1 | EST_HUMAN | zp18g12.s1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:909862 3' |
| 12665 | 26003 | | 13.39 | 8.0E-28 | AW167574.1 | EST_HUMAN | CM2-TN0140-070900-372-g01 TN0140 Homo sapiens cDNA |
| 1208 | 14370 | 27430 | 11.5 | 7.0E-28 | AU142750.1 | EST_HUMAN | au83i08.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2782011 3' similar to |
| 11483 | 24622 | 38192 | 1.65 | 7.0E-28 | 11417866 | NT | TR:O60302 O60302 KIAA0555 PROTEIN, contains element MER22 repetitive element; |
| 12181 | 25141 | | 5.04 | 7.0E-28 | AV735348.1 | EST_HUMAN | AU142750 Y78AA1 Homo sapiens cDNA clone Y78AA1000924 5' |
| 9119 | 22198 | | 1.28 | 6.0E-28 | AF016052.1 | NT | Homo sapiens gamma-glutamyltransferase-like activity 1 (GGT1A1), mRNA |
| 12866 | 25577 | | 5.92 | 6.0E-28 | AA504592.1 | EST_HUMAN | AV735348 CB Homo sapiens cDNA clone CBFAKA12 5' |
| 328 | 13542 | | 2.75 | 5.0E-28 | AI921003.1 | EST_HUMAN | Homo sapiens zinc finger protein ZNF191 (ZNF191) gene, complete cds |
| 4116 | 17270 | 30269 | 38.94 | 5.0E-28 | R79762.1 | EST_HUMAN | aa60.e03.r1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:825340 5' similar to contains Alu |
| 2689 | 16809 | 28928 | 1.48 | 4.0E-28 | AW195068.1 | EST_HUMAN | repetitive element/contains element PTR5 repetitive element; |
| 3177 | 16352 | 28368 | 1.34 | 4.0E-28 | BE409100.1 | EST_HUMAN | wc18c07.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2455692 3' similar to contains THR.b1 |
| 7483 | 20558 | 34030 | 3.56 | 4.0E-28 | AI198941.1 | EST_HUMAN | THR repetitive element; |
| 11105 | 24177 | | 4.19 | 4.0E-28 | AF029308.1 | NT | xr33c09.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:148443 5' |
| 11265 | 24324 | | 14.89 | 4.0E-28 | AB038241.1 | NT | y88f10.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:2895604 3' similar to SW:GG95_HUMAN |
| 11278 | 20568 | 34030 | 4.34 | 4.0E-28 | AI198941.1 | EST_HUMAN | Q08379 GOLGIN-95; |
| 12822 | 25418 | | 1.7 | 4.0E-28 | AW854244.1 | EST_HUMAN | G01300703F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3635305 5' |
| 12773 | 26069 | | 1.62 | 4.0E-28 | AW862350.1 | EST_HUMAN | G01300703F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3635305 5' |
| | | | | | | | q66f10.x1 Soares testis NHT Homo sapiens cDNA clone IMAGE:1755019 3' similar to gb:M19503 LINE-1 |
| | | | | | | | REVERSE TRANSCRIPTASE HOMOLOG (HUMAN); |
| | | | | | | | RC3-CT0254-240400-210-T12 CT0254 Homo sapiens cDNA |
| | | | | | | | RC3-CT0379-070100-031-h01 CT0379 Homo sapiens cDNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 1312 | 14488 | | 2.29 | 3.0E-28 | AF155382.1 | NT | Homo sapiens metalloprotease-like, disintegrin-like, cysteine-rich protein 2 epsilon (ADAM22) mRNA, complete cds |
| 5227 | 18349 | | 0.94 | 3.0E-28 | AF009660.1 | NT | Homo sapiens T cell receptor beta locus, TCRBV7S3A2 to TCRBV12S2 region |
| 9027 | 22106 | 35847 | 2.28 | 3.0E-28 | BF354030.1 | EST_HUMAN | MR3-HT0713-280500-013-109 HT0713 Homo sapiens cDNA |
| 11176 | 24245 | 37878 | 2.09 | 3.0E-28 | U53588.1 | NT | Homo sapiens MHC class 1 region |
| 12853 | 25433 | | 3.77 | 3.0E-28 | AB31991.1 | EST_HUMAN | wj98107.x1 NCI CGAP_Lym12 Homo sapiens cDNA clone IMAGE:2410885 3' similar to contains Alu repetitive element; contains element HGR repetitive element; |
| 12803 | 25536 | | 3.29 | 3.0E-28 | BE082801.1 | EST_HUMAN | RC2-BT0842-210200-013-103 BT0842 Homo sapiens cDNA |
| 12895 | 25578 | 31993 | 1.22 | 3.0E-28 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 12865 | 25578 | 31984 | 1.22 | 3.0E-28 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 91 | 13326 | 26354 | 12.79 | 2.0E-28 | BE082187.1 | EST_HUMAN | RC1-BT0254-220300-018-c05 BT0254 Homo sapiens cDNA |
| 1181 | 14353 | 27411 | 9.24 | 2.0E-28 | Y11107.3 | NT | Homo sapiens ITGB4 gene for Integrin beta 4 subunit, exons 3-41 |
| 2546 | 15871 | 28795 | 2.16 | 2.0E-28 | A1348834.1 | EST_HUMAN | qp35606.x1 NCI CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1010483 3' similar to contains L1.b2 L1 repetitive element; |
| 3446 | 16614 | 29632 | 0.81 | 2.0E-28 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 6437 | 18604 | 32968 | 1.48 | 2.0E-28 | BF224402.1 | EST_HUMAN | hr78c03.x1 NCI CGAP_Kld11 Homo sapiens cDNA clone IMAGE:3134404 3' similar to contains LOR1.b1 |
| 6460 | 18627 | | 3 | 2.0E-28 | BF212906.1 | EST_HUMAN | LOR1 repetitive element; |
| 8234 | 21316 | 34837 | 0.93 | 2.0E-28 | AF005273.1 | NT | 601814196F1 NIH_MGC B4 Homo sapiens cDNA clone IMAGE:4048751 5' |
| 9783 | 22823 | | 2.23 | 2.0E-28 | AW972305.1 | EST_HUMAN | Sua scrofa domestica submandibular apomucin mRNA, complete cds |
| 11813 | 24600 | 38603 | 2.52 | 2.0E-28 | AF224680.1 | NT | EST384394 IMAGE resequences, MAGL Homo sapiens cDNA |
| 12631 | 25424 | | 1.74 | 2.0E-28 | H06376.1 | EST_HUMAN | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 1508 | 14661 | 27744 | 2.85 | 1.0E-28 | D38044.1 | NT | y78c09.r1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:44300 5' |
| 2294 | 15426 | 28560 | 3.91 | 1.0E-28 | BF333238.1 | EST_HUMAN | Human gene for Ahr-receptor, exon 7-9 |
| 4691 | 17826 | | 0.95 | 1.0E-28 | U09410.1 | NT | QV1-BT0821-120900-360-b03 BT0821 Homo sapiens cDNA |
| 8044 | 21127 | | 1.95 | 1.0E-28 | 11428885 | NT | Human zinc finger protein ZNF131 mRNA, partial cds |
| 8208 | 21250 | | 3.03 | 1.0E-28 | 8922703 | NT | Homo sapiens similar to ribosomal protein L12 (H. sapiens) (LOC63091), mRNA |
| 9478 | 22535 | 36099 | 4.75 | 1.0E-28 | AA308744.1 | EST_HUMAN | Homo sapiens hypothetical protein FLJ10988 (FLJ10988), mRNA |
| 10080 | 23118 | 36720 | 5.91 | 1.0E-28 | 4759431 | NT | EST179815 HCC cell line (metastasis to liver in mouse) II Homo sapiens cDNA 5' end similar to similar to retroviral LTR |
| 10080 | 23118 | 36721 | 5.91 | 1.0E-28 | 4759431 | NT | Homo sapiens gamma-glutamyltransferase-like activity 1 (GGT1A1), mRNA |
| 12186 | 25145 | | 7.09 | 1.0E-28 | AA054182.1 | EST_HUMAN | Homo sapiens gamma-glutamyltransferase-like activity 1 (GGT1A1), mRNA |
| 13013 | 25881 | | 4.56 | 1.0E-28 | AL163247.2 | NT | AB1c01.r1 Soares retina N2b-4HR Homo sapiens cDNA clone IMAGE:380448 5' |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 13135 | 26122 | 31543 | 1.8 | 9.0E-29 | AW663987.1 | EST_HUMAN | h78g06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2978268 3' |
| 12752 | 25498 | | 2.57 | 8.0E-29 | Q00130 | SWISSPROT | HYPOTHETICAL GENE 60 PROTEIN |
| 1632 | 14784 | 27870 | 1.98 | 7.0E-29 | AW966447.1 | EST_HUMAN | EST378521 MAGE resequencing, MAGI Homo sapiens cDNA |
| 13197 | 25779 | | 9.03 | 7.0E-29 | AJ132352.1 | NT | Rattus norvegicus mRNA for 45 kDa secretory protein, partial |
| 608 | 13797 | 26817 | 9.39 | 8.0E-29 | AB398748.1 | EST_HUMAN | wp69601.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2466885 3' similar to TR:O16475 |
| 12495 | 25342 | | 6.19 | 6.0E-29 | BE940436.1 | EST_HUMAN | O15475 UNNAMED HERV-H PROTEIN; contains LTR7 b1 LTR7 repetitive element ; |
| 12587 | 25395 | | 2.1 | 6.0E-29 | BF588097.1 | EST_HUMAN | RC3-UT0062-210800-021-c05 UT0062 Homo sapiens cDNA |
| 5113 | 18241 | | 2.39 | 5.0E-29 | AL163203.2 | NT | 602184082F1 NIH_MGC_42 Homo sapiens cDNA clone IMAGE:4300079 5' |
| 8928 | 22008 | | 8.35 | 5.0E-29 | AW887641.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C003 |
| 12795 | 25531 | | 1.49 | 5.0E-29 | BE612446.1 | EST_HUMAN | RC3-OT0091-170300-011-c12 OT0091 Homo sapiens cDNA |
| 3304 | 16478 | | 2.28 | 4.0E-29 | A1752367.1 | EST_HUMAN | 601451827F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3865728 5' |
| 6133 | 18312 | | 7.08 | 4.0E-29 | BE164930.1 | EST_HUMAN | cn15c02.x1 Normal Human Trabecular Bone Cello Homo sapiens cDNA clone NHTBC_cn15c02 random |
| 8272 | 21354 | 34870 | 0.84 | 4.0E-29 | A1878101.1 | EST_HUMAN | QV1-HT0471-280300-121-a05 HT0471 Homo sapiens cDNA |
| 8272 | 21354 | 34871 | 0.84 | 4.0E-29 | A1878101.1 | EST_HUMAN | wd35g06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2330170 3' similar to contains |
| 8944 | 22023 | 35563 | 3.59 | 4.0E-29 | JO4988.1 | NT | MER29 12 MER29 repetitive element ; |
| 4536 | 17874 | 30658 | 1.31 | 3.0E-29 | AB042297.1 | NT | Human 90 kD heat shock protein gene, complete cds |
| 4855 | 17888 | 30976 | 1.1 | 3.0E-29 | BF333236.1 | EST_HUMAN | Homo sapiens PTS gene for 6-pyruvyltetrahydropterin synthase, complete cds |
| 6053 | 19235 | 32360 | 0.83 | 3.0E-29 | BE314018.1 | EST_HUMAN | QV1-BT0821-120900-360-b03 BT0821 Homo sapiens cDNA |
| 8931 | 22010 | 35548 | 3.23 | 3.0E-29 | D38044.1 | NT | 601162657F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3508527 5' |
| 9500 | 22556 | 36119 | 1.22 | 3.0E-29 | AW303317.1 | EST_HUMAN | Human gene for Ah-receptor, exon 7-9 |
| 8731 | 22796 | | 1.49 | 3.0E-29 | AL163246.2 | NT | xv1703.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2813406 3' similar to contains Alu |
| 10164 | 23201 | | 0.81 | 3.0E-29 | BE350127.1 | EST_HUMAN | repetitive element contains MER19.12 MER19 repetitive element ; |
| 11546 | 24602 | 38278 | 2.26 | 3.0E-29 | AA403053.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C046 |
| 12886 | 26272 | | 1.36 | 3.0E-29 | D63882.1 | NT | 262501.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:728889 5' similar to TR:G1335769 |
| 13092 | 26132 | | 1.62 | 3.0E-29 | D63882.1 | NT | G1335769 GAG-POL_POLYPROTEIN ; |
| 505 | 13699 | 26727 | 0.98 | 2.0E-29 | AF084869.1 | NT | Human HsLIM15 mRNA for HsLIM15, complete cds |
| 505 | 13699 | 26728 | 0.98 | 2.0E-29 | AF084869.1 | NT | Human HsLIM15 mRNA for HsLIM15, complete cds |
| | | | | | | NT | Homo sapiens envelope protein RIC-6 (env) gene, complete cds |
| | | | | | | NT | Homo sapiens envelope protein RIC-6 (env) gene, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|-----------------------------|-------------------------------|---|
| 1663 | 14716 | 27794 | 7.8 | 2.0E-29 | AB53604.1 | EST_HUMAN | w65d10.x1 NCL_CGAP_U11 Homo sapiens cDNA clone IMAGE:2492563 3' similar to TR:O15548 O15548 HERV-E ENVELOPE GLYCOPROTEIN ; |
| 1563 | 14718 | 27795 | 7.8 | 2.0E-29 | AB53604.1 | EST_HUMAN | w65d10.x1 NCL_CGAP_U11 Homo sapiens cDNA clone IMAGE:2492563 3' similar to TR:O15548 O15548 HERV-E ENVELOPE GLYCOPROTEIN ; |
| 1782 | 14931 | 28024 | 2.31 | 2.0E-29 | X84900.1 | NT | H.sapiens mRNA for laminin-5, alpha3b chain |
| 1782 | 14931 | 28025 | 2.31 | 2.0E-29 | X84900.1 | NT | H.sapiens mRNA for laminin-5, alpha3b chain |
| 4384 | 17937 | 30518 | 2.55 | 2.0E-29 | AL163268.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 5946 | 18132 | 32448 | 0.78 | 2.0E-29 | AB082459.1 | EST_HUMAN | os71a04.x1 NCL_CGAP_GC2 Homo sapiens cDNA clone IMAGE:1610814 3' similar to contains L1.12 L1 repetitive element ; |
| 6309 | 19481 | 32835 | 1.49 | 2.0E-29 | AB08418.1 | EST_HUMAN | w27g07.x1 Soares_NFL_I_GBC_S1 Homo sapiens cDNA clone IMAGE:2356980 3' similar to contains element MER6 repetitive element ; |
| 7732 | 19481 | 32835 | 1.28 | 2.0E-29 | AB08418.1 | EST_HUMAN | w27g07.x1 Soares_NFL_I_GBC_S1 Homo sapiens cDNA clone IMAGE:2356980 3' similar to contains element MER6 repetitive element ; |
| 8164 | 21246 | 34768 | 1.16 | 2.0E-29 | BE567157.1 | EST_HUMAN | G0144206F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3846849 5' |
| 8777 | 21856 | 35399 | 0.91 | 2.0E-29 | 10567821 | NT | Homo sapiens DNA-binding protein (LOC56242), mRNA |
| 8777 | 21856 | 35399 | 0.91 | 2.0E-29 | 10567821 | NT | Homo sapiens DNA-binding protein (LOC56242), mRNA |
| 9708 | 22767 | 36327 | 2.76 | 2.0E-29 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 9708 | 22767 | 36328 | 2.76 | 2.0E-29 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 10444 | 23479 | 37084 | 3.65 | 2.0E-29 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 10444 | 23479 | 37086 | 3.65 | 2.0E-29 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 11787 | 24760 | 35811 | 1.07 | 2.0E-29 | 11425108 | NT | Homo sapiens splicing factor similar to dral (SPF31), mRNA |
| 8992 | 22071 | 35811 | 8.27 | 1.0E-29 | AW983680.1 | EST_HUMAN | RC1-HN003-220300-021-504 HN003 Homo sapiens cDNA |
| 10860 | 23883 | 37503 | 2.81 | 1.0E-29 | X60658.1 | NT | R.rattus RYA3 mRNA for a potential ligand-binding protein |
| 6712 | 19870 | 33261 | 3.53 | 9.0E-30 | AA761215.1 | EST_HUMAN | h220c07.s1 NCL_CGAP_GC51 Homo sapiens cDNA clone IMAGE:1288332 3' similar to contains MER4.b1 MER4 repetitive element ; |
| 12766 | 26200 | | 4.55 | 9.0E-30 | 11422745 | NT | Homo sapiens zinc finger regulated transporter-like (ZIRTL), mRNA |
| 8449 | 19616 | | 10.5 | 8.0E-30 | F08688.1 | EST_HUMAN | HSC23F051 normalized infant brain cDNA Homo sapiens cDNA clone c-23105 |
| 8465 | 21546 | 35076 | 2.28 | 8.0E-30 | AA383873.1 | EST_HUMAN | EST97317 Thymus I Homo sapiens cDNA 5' and similar to EST containing O family repeat |
| 8882 | 21961 | 35495 | 2.79 | 8.0E-30 | AI557072.1 | EST_HUMAN | PT2.1_13 BT1.r tumor2 Homo sapiens cDNA 3' |
| 1646 | 14697 | | 1.07 | 7.0E-30 | BE091133.1 | EST_HUMAN | PM4-BT0724-150400-004-d11 BT0724 Homo sapiens cDNA |
| 1814 | 14993 | 28056 | 1.57 | 6.0E-30 | D25303.1 | NT | Human mRNA for integrin alpha subunit, complete cds |
| 3258 | 16433 | 29450 | 3.15 | 6.0E-30 | BE008028.1 | EST_HUMAN | QV0-BN0147-280400-214-f12 BN0147 Homo sapiens cDNA |
| 4881 | 16433 | 29450 | 1.02 | 6.0E-30 | BE008028.1 | EST_HUMAN | QV0-BN0147-280400-214-f12 BN0147 Homo sapiens cDNA |
| 10760 | 23793 | 37412 | 0.76 | 6.0E-30 | AF177227.1 | NT | Homo sapiens CTCL tumor antigen se20-10 mRNA, partial cds |

Table 4.

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 13161 | 18485 | | 1.75 | 6.0E-30 | X61755.1 | NT | Human lambda5-immunoglobulin constant region complex (germline) |
| 4121 | 17275 | 30274 | 43.22 | 6.0E-30 | A1399992.1 | EST_HUMAN | ig92g03.x1 NCI_CGAP_OLL1 Homo sapiens cDNA clone IMAGE:2116278 3' similar to contains Alu repetitive element; |
| 5353 | 25928 | | 5.79 | 5.0E-30 | U87831.1 | NT | Human acetylcholinesterase (AChE) gene, exon 7 |
| 11126 | 24188 | | 2.12 | 5.0E-30 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 11423 | 24484 | 38148 | 2.76 | 5.0E-30 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 11423 | 24484 | 38149 | 2.76 | 5.0E-30 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 2210 | 15344 | 28470 | 2.38 | 4.0E-30 | AW637471.1 | EST_HUMAN | QV3-DT0043-090200-080-c06 DT0043 Homo sapiens cDNA |
| 2210 | 15344 | 28471 | 2.38 | 4.0E-30 | AW637471.1 | EST_HUMAN | QV3-DT0043-090200-080-c06 DT0043 Homo sapiens cDNA |
| 9106 | 22185 | 35729 | 1.55 | 4.0E-30 | AW612468.1 | EST_HUMAN | CM1-ST0181-091199-035-f08 ST0181 Homo sapiens cDNA |
| 1175 | 14338 | | 4.56 | 3.0E-30 | A1338551.1 | EST_HUMAN | q983c05.x1 Soerea_tota_fetus_Nb2Hf8_gw Homo sapiens cDNA, clone IMAGE:1938920 3' similar to contains MER29 repetitive element; |
| 3883 | 17013 | 30013 | 1.15 | 3.0E-30 | AF128853.1 | NT | Homo sapiens telomerase reverse transcriptase (TERT) gene, exon 1-6 |
| 8138 | 21220 | | 0.53 | 3.0E-30 | AF078779.1 | NT | Rattus norvegicus putative four repeat ion channel mRNA, complete cds |
| 8853 | 21763 | | 0.45 | 3.0E-30 | AF078779.1 | NT | Rattus norvegicus putative four repeat ion channel mRNA, complete cds |
| 10849 | 23683 | 37284 | 0.74 | 3.0E-30 | BE350127.1 | EST_HUMAN | h09g01.x1 NCI_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3148268 3' similar to contains MER29.b3 |
| 11482 | 24841 | 38211 | 1.52 | 3.0E-30 | P34058 | SWISSPROT | MER29 repetitive element. |
| 682 | 13875 | 26908 | 1.42 | 2.0E-30 | AW857315.1 | EST_HUMAN | TRANSSCRIPTION FACTOR AP-2 |
| 1108 | 14273 | | 2.53 | 2.0E-30 | F08688.1 | EST_HUMAN | CM0-CT0307-310100-168-H03 CT0307 Homo sapiens cDNA |
| 1509 | 14682 | 27745 | 6.5 | 2.0E-30 | BE175877.1 | EST_HUMAN | HSC23F051 normalized infant brain cDNA Homo sapiens cDNA clone c-23f05 |
| 2779 | 15895 | 29005 | 9.93 | 2.0E-30 | BE175877.1 | EST_HUMAN | RC5-HT0582-110400-013-H08 HT0582 Homo sapiens cDNA |
| 2988 | 16162 | 29179 | 6.83 | 2.0E-30 | AF114186.1 | NT | IL2-NT0101-280700-116-E04 NT0101 Homo sapiens cDNA |
| 3889 | 17048 | 30048 | 1.95 | 2.0E-30 | AW206881.1 | EST_HUMAN | Homo sapiens Y-linked zinc finger protein (ZFP) gene, complete cds |
| 4900 | 18030 | 31018 | 2.02 | 2.0E-30 | BE298945.1 | EST_HUMAN | U1H-B11-efo-c-12-0-J1.s1 NCI_CGAP_Sub03 Homo sapiens cDNA clone IMAGE:2722668 3' |
| 4800 | 18030 | 31019 | 2.02 | 2.0E-30 | BE298945.1 | EST_HUMAN | 601119860FT NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3028438 5' |
| 8734 | 21814 | 35349 | 4.69 | 2.0E-30 | C18939.1 | EST_HUMAN | 601119860FT NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3028438 5' |
| 8836 | 21816 | 35452 | 1.71 | 2.0E-30 | BE670617.1 | EST_HUMAN | C18939 Human placenta cDNA (T Fujimura) Homo sapiens cDNA clone GEN-570C01 5' |
| 8836 | 21915 | 35453 | 1.71 | 2.0E-30 | BE670617.1 | EST_HUMAN | 7e37c12.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3284662 3' similar to SW:DHSA_HUMAN |
| 10201 | 23238 | 36828 | 3.78 | 2.0E-30 | AW871968.1 | EST_HUMAN | P31040 SUCCINATE DEHYDROGENASE [UBIQUINONE] FLAVOPROTEIN SUBUNIT PRECURSOR ; |
| | | | | | | | 7e37c12.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3284662 3' similar to SW:DHSA_HUMAN |
| | | | | | | | P31040 SUCCINATE DEHYDROGENASE [UBIQUINONE] FLAVOPROTEIN SUBUNIT PRECURSOR ; |
| | | | | | | | EST383557 IMAGE resequenced, MAGL Homo sapiens cDNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 10287 | 23322 | 36924 | 6.31 | 2.0E-30 | AW470791.1 | EST_HUMAN | ha33408.x1 NCI CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2875499 3' similar to contains THR.B3 THR repetitive element; |
| 287 | 13514 | 26548 | 10.87 | 1.0E-30 | C18939.1 | EST_HUMAN | C18939 Human placenta cDNA (T Fujiiwara) Homo sapiens cDNA clone GEN-670C01 5' |
| 551 | 13744 | 28769 | 1.62 | 1.0E-30 | AW468897.1 | EST_HUMAN | hd30b04.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2810591 3' similar to contains MER1.13 MER1 MER1 repetitive element; |
| 734 | 13916 | 28956 | 5.15 | 1.0E-30 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 2286 | 15418 | 28550 | 11.56 | 1.0E-30 | AA684377.1 | EST_HUMAN | ac7b08.s1 Stragene lung (#937210) Homo sapiens cDNA clone IMAGE:868599 3' |
| 2533 | 16658 | 28782 | 2.15 | 1.0E-30 | BF347728.1 | EST_HUMAN | 602022560F1 NCI CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4157891 5' |
| 3120 | 16296 | 29310 | 0.91 | 1.0E-30 | AA316046.1 | EST_HUMAN | EST188668 HCC cell line (metastasis to liver in mouse) II Homo sapiens cDNA 5' end |
| 7901 | 20953 | 34460 | 1.96 | 1.0E-30 | BF183203.1 | EST_HUMAN | 601809932F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:4040694 5' |
| 8176 | 21268 | 34780 | 0.49 | 1.0E-30 | BE081586.1 | EST_HUMAN | NR0-BT0249-091289-101-g01 BT0249 Homo sapiens cDNA |
| 12788 | 26117 | | 1.57 | 1.0E-30 | AA298211.1 | EST_HUMAN | EST11698 Uterus Homo sapiens cDNA 5' end |
| 12937 | 26025 | | 5.31 | 1.0E-30 | H55593.1 | EST_HUMAN | CHR220532 Chromosome 22 exon Homo sapiens cDNA clone C22_728 5' |
| 3852 | 17022 | 30020 | 0.8 | 9.0E-31 | TT3025.1 | EST_HUMAN | yc65e08.r1 Stragene liver (#937224) Homo sapiens cDNA clone IMAGE:86570 5' |
| 3882 | 17022 | 30021 | 0.8 | 9.0E-31 | TT3025.1 | EST_HUMAN | yc65e08.r1 Stragene liver (#937224) Homo sapiens cDNA clone IMAGE:86570 5' |
| 8519 | 21600 | 35135 | 0.88 | 9.0E-31 | R18214.1 | EST_HUMAN | yc65e08.r1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:30566 5' similar to gb:X12853 RAS- RELATED PROTEIN RAB-2 (HUMAN); |
| 8519 | 21600 | 35136 | 0.98 | 9.0E-31 | R18214.1 | EST_HUMAN | yc65e08.r1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:30566 5' similar to gb:X12853 RAS- RELATED PROTEIN RAB-2 (HUMAN); |
| 8825 | 21904 | | 1.99 | 9.0E-31 | Z38293.1 | EST_HUMAN | HSC05F032 normalized infant brain cDNA Homo sapiens cDNA clone c-05f03 3' |
| 8827 | 21906 | 36415 | 0.65 | 9.0E-31 | AF078776.1 | NT | Rattus norvegicus putative four repeat ion channel mRNA, complete cds |
| 13183 | 25776 | 31934 | 1.29 | 9.0E-31 | 6765441 | NT | Mus musculus syndecan 4 (Scd4), mRNA |
| 1102 | 14267 | 27325 | 2.52 | 8.0E-31 | 8923389 | NT | Homo sapiens hypothetical protein FLJ20420 (FLJ20420), mRNA |
| 2484 | 15811 | | 7.93 | 8.0E-31 | AL163208.2 | NT | Homo sapiens chromosome 21 segment HS21C008 |
| 729 | 13911 | | 1.69 | 7.0E-31 | AA372637.1 | EST_HUMAN | EST194555 Colon adenocarcinoma IV Homo sapiens cDNA 5' end |
| 2733 | 15850 | 28962 | 2.1 | 7.0E-31 | BE328517.1 | EST_HUMAN | hw05a11.x1 NCI CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3182012 3' |
| 2733 | 15850 | 28963 | 2.1 | 7.0E-31 | BE328517.1 | EST_HUMAN | hw05a11.x1 NCI CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3182012 3' |
| 8595 | 21876 | 35212 | 1.02 | 7.0E-31 | AF208541.1 | NT | Homo sapiens V1-vascular vasopressin receptor AVPR1A gene, promoter region and partial cds |
| 8595 | 21876 | 35213 | 1.02 | 7.0E-31 | AF208541.1 | NT | Homo sapiens V1-vascular vasopressin receptor AVPR1A gene, promoter region and partial cds |
| 8486 | 22523 | | 1.03 | 7.0E-31 | BE408611.1 | EST_HUMAN | 601304125F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3638310 5' |
| 3769 | 16930 | | 3.42 | 8.0E-31 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 8347 | 21428 | | 1.39 | 8.0E-31 | AF055068.1 | NT | Homo sapiens MHC class 1 region |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|-----------------------------|-------------------------------|--|
| 8526 | 21607 | 35148 | 0.76 | 6.0E-31 | BE350127.1 | EST_HUMAN | h08g01.x1 NCI_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3146256 3' similar to contains MER29.b3 MER29 repetitive element: |
| 10976 | 24055 | 37689 | 1.43 | 6.0E-31 | AU119105.1 | EST_HUMAN | AU119105 HEMBA1 Homo sapiens cDNA clone HEMBA1005050 5' |
| 12327 | 25236 | 32108 | 3.7 | 6.0E-31 | AW372868.1 | EST_HUMAN | RC5-BT0377-091289-031-D12 BT0377 Homo sapiens cDNA |
| 12459 | 25947 | | 2.54 | 6.0E-31 | BE894488.1 | EST_HUMAN | 601433087F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918524 5' |
| 187 | 13420 | 26450 | 3.89 | 6.0E-31 | M60694.1 | NT | Homo sapiens type I DNA topoisomerase gene, exon 8 |
| 187 | 13420 | 26451 | 3.39 | 6.0E-31 | M60694.1 | NT | Homo sapiens type I DNA topoisomerase gene, exon 8 |
| 8640 | 21720 | | 1.28 | 6.0E-31 | BF066540.1 | EST_HUMAN | 7k0604.x1 NCI_CGAP_GCB Homo sapiens cDNA clone IMAGE:3443479 3' similar to TRQ13537 Q13537 |
| 609 | 13798 | | 3.02 | 4.0E-31 | AJ271735.1 | NT | SIMILAR TO POGO ELEMENT, contains L1, L1 L1 repetitive element: |
| | | | | | | | Homo sapiens Xq pseudautosomal region, segment 1/2 |
| 1642 | 14794 | 27878 | 1.14 | 4.0E-31 | Q10473 | SWISSPROT | POLYPEPTIDE N-ACETYL GALACTOSAMINYL TRANSFERASE (PROTEIN-UDP ACETYL GALACTOSAMINYL TRANSFERASE) (UDP-GALNAc:POLYPEPTIDE, N- ACETYL GALACTOSAMINYL TRANSFERASE) (GALNAc-T1) |
| 1861 | 15007 | | 2.09 | 4.0E-31 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 2849 | 15953 | | 1.57 | 4.0E-31 | 6730038 | NT | Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA |
| 10784 | 23787 | 37402 | 0.46 | 4.0E-31 | AF084494.1 | NT | Rattus norvegicus GTP-binding protein REM2 (Rem2) mRNA, complete cds |
| 12787 | 25526 | | 1.55 | 4.0E-31 | 11430273 | NT | Homo sapiens KIAA0569 gene product (KIAA0569), mRNA |
| 12924 | 28609 | | 2 | 4.0E-31 | AB008681.1 | NT | Homo sapiens gene for activin receptor type IIB, complete cds |
| 2680 | 15782 | 28897 | 1.75 | 3.0E-31 | 6005871 | NT | Homo sapiens SEC93, endoplasmic reticulum translocan component (S. cerevisiae) like (SEC63L), mRNA |
| 7494 | 20559 | 34041 | 8.04 | 3.0E-31 | 4826863 | NT | Homo sapiens NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 8 (18kD, ASH1) (NDUF88) mRNA |
| 7663 | 20730 | 34206 | 1.23 | 3.0E-31 | 11420328 | NT | Homo sapiens hypothetical protein FLJ10842 (FLJ10842), mRNA |
| 8355 | 21438 | | 1.51 | 3.0E-31 | AL163208.2 | NT | Homo sapiens chromosome 21 segment HS21C006 |
| 9779 | 22819 | 36397 | 2.59 | 3.0E-31 | D14523.1 | EST_HUMAN | Horse mRNA for ferritin L-chain, complete cds |
| 10822 | 23855 | 37477 | 0.85 | 3.0E-31 | AA421242.1 | EST_HUMAN | zu06d04.r1 Soares testis NHT Homo sapiens cDNA clone IMAGE:731047 5' |
| 10867 | 23952 | 37682 | 2.03 | 3.0E-31 | P11174 | SWISSPROT | 40S RIBOSOMAL PROTEIN S15 (RIG PROTEIN) |
| 11421 | 24482 | | 3.47 | 3.0E-31 | BF033327.1 | EST_HUMAN | 601458331F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862086 5' |
| 1867 | 15110 | 28211 | 1.59 | 2.0E-31 | AW838171.1 | EST_HUMAN | QV2-LT0051-260300-111-003 LT0051 Homo sapiens cDNA |
| 2288 | 15420 | 28552 | 1.05 | 2.0E-31 | A1363368.1 | EST_HUMAN | ig44g05.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2111672 3' |
| 2416 | 15545 | 28674 | 2.22 | 2.0E-31 | AL119245.1 | EST_HUMAN | DKFZp761G1513.r1 701 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761G1513 5' |
| 2511 | 15637 | 28758 | 4.83 | 2.0E-31 | AA459824.1 | EST_HUMAN | THR12 THR repetitive element: |
| 5389 | 18591 | 31593 | 0.76 | 2.0E-31 | AW444486.1 | EST_HUMAN | UHH-B13-akb-f-09-D-U1.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2733833 3' |

Page 270 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 5829 | 18020 | 32328 | 3.43 | 2.0E-31 | BE350127.1 | EST_HUMAN | h09g01.x1 NCL CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3148268 3' similar to contains MER29.B3 MER29 repetitive element; |
| 9277 | 22363 | | 1.53 | 2.0E-31 | AA877784.1 | EST_HUMAN | m0604.s1 NCL CGAP_Cot10 Homo sapiens cDNA clone IMAGE:1101055 3' similar to TR-Q13537 Q13537 MER37 TRANSPOSABLE ELEMENT, COMPLETE CONSENSUS SEQUENCE.; |
| 9408 | 22482 | 36046 | 3.46 | 2.0E-31 | 7681535 | NT | Homo sapiens B9 protein (B9), mRNA |
| 10110 | 23148 | 36748 | 1.1 | 2.0E-31 | AV710948.1 | EST_HUMAN | AV710948 Cu Homo sapiens cDNA clone CuAALB07 6' |
| 10110 | 23148 | 36749 | 1.1 | 2.0E-31 | AV710948.1 | EST_HUMAN | AV710948 Cu Homo sapiens cDNA clone CuAALB07 5' |
| 10280 | 23315 | 36914 | 2.75 | 2.0E-31 | BE408611.1 | EST_HUMAN | 601304125F1 NIH_MGC 21 Homo sapiens cDNA clone IMAGE:36838310 5' |
| 10280 | 23315 | 36915 | 2.75 | 2.0E-31 | BE408611.1 | EST_HUMAN | 601304125F1 NIH_MGC 21 Homo sapiens cDNA clone IMAGE:36838310 5' |
| 12430 | 25305 | | 3.49 | 2.0E-31 | AF148512.1 | NT | Homo sapiens hexokinase II gene, promoter region |
| 12578 | 26202 | | 2.59 | 2.0E-31 | AI114627.1 | EST_HUMAN | HA11110 Human fetal liver cDNA library Homo sapiens cDNA (IMAGE-B1) genes, complete cds |
| 17 | 13255 | 26266 | 9.91 | 1.0E-31 | U93163.1 | NT | Homo sapiens IMAGE-B2 (IMAGE-B2), IMAGE-B3 (IMAGE-B3), IMAGE-B4 (IMAGE-B4), and IMAGE-B1 (IMAGE-B1) genes, complete cds |
| 1698 | 14848 | 27632 | 2.68 | 1.0E-31 | O65371 | SWISSPROT | OLFACTORY RECEPTOR 2C1 |
| 1696 | 14848 | 27633 | 2.68 | 1.0E-31 | O65371 | SWISSPROT | OLFACTORY RECEPTOR 2C1 |
| 1696 | 14848 | 27634 | 2.68 | 1.0E-31 | O65371 | SWISSPROT | OLFACTORY RECEPTOR 2C1 |
| 6407 | 18609 | 31581 | 3.97 | 1.0E-31 | AW391879.1 | EST_HUMAN | MR3-STO220-151299-028-a08.1 ST0220 Homo sapiens cDNA |
| 6281 | 19435 | 32781 | 2.57 | 1.0E-31 | AF048727.1 | NT | Homo sapiens mitochondria cell repeat region |
| 7441 | 20618 | 33690 | 0.94 | 1.0E-31 | AF126145.1 | NT | Bos taurus xenobiotic/medium-chain fatty acid:CoA ligase form XL-III mRNA, nuclear mRNA encoding mitochondrial protein, complete cds |
| 6005 | 21055 | 34567 | 1.35 | 1.0E-31 | BE972818.1 | EST_HUMAN | 601652052F1 NIH_MGC 82 Homo sapiens cDNA clone IMAGE:3938293 5' |
| 10441 | 23476 | 37080 | 0.51 | 1.0E-31 | U93163.1 | NT | Homo sapiens IMAGE-B2 (IMAGE-B2), IMAGE-B3 (IMAGE-B3), IMAGE-B4 (IMAGE-B4), and IMAGE-B1 (IMAGE-B1) genes, complete cds |
| 11158 | 24227 | 37857 | 2.35 | 1.0E-31 | AI086434.1 | EST_HUMAN | q721h03.x1 NCL CGAP_Brn25 Homo sapiens cDNA clone IMAGE:1750709 3' similar to TR-Q16895 Q16895 FRATAXIN.; |
| 6776 | 16931 | 33927 | 2.19 | 9.0E-32 | AV723970.1 | EST_HUMAN | AV723970 HTB Homo sapiens cDNA clone HTBAAG01 5' |
| 7530 | 20803 | 34077 | 0.66 | 9.0E-32 | L31770.1 | NT | Bos taurus vacuolar H ⁺ -ATPase subunit mRNA, complete cds |
| 7766 | 20825 | | 0.91 | 9.0E-32 | 11430822 | NT | Homo sapiens hypothetical protein FLJ11204 (FLJ11204), mRNA |
| 2139 | 15275 | 28397 | 5.1 | 8.0E-32 | AI056770.1 | EST_HUMAN | oz16a09.x1 Soares fetal liver spleen_1INFLS_S1 Homo sapiens cDNA clone IMAGE:1675384 3' |
| 5599 | 18794 | 31843 | 0.77 | 8.0E-32 | AW997214.1 | EST_HUMAN | RC2-BN0048-200300-015-e04 BN0048 Homo sapiens cDNA |
| 12406 | 25285 | | 2.98 | 7.0E-32 | X17283.1 | NT | Human chromosome 22 immunoglobulin V(K) gene, part with 5' breakpoint between alpha and neighbouring non-amplified region |
| 7523 | 20598 | | 1.32 | 6.0E-32 | BE983016.1 | EST_HUMAN | 601511530F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913087 5' |

Page 271 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 12860 | 26181 | | 2.5 | 8.0E-32 | AA864653.1 | EST_HUMAN | 0137c03.e1 NCI_CGAP_Kid0 Homo sapiens cDNA clone IMAGE:1459972 3' similar to contains L1.13 L1 repetitive element: |
| 1050 | 14225 | 27282 | 10.42 | 6.0E-32 | AF116827.1 | NT | Homo sapiens PRO1181 mRNA, complete cds |
| 854 | 14127 | | 1.64 | 4.0E-32 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 7779 | 20335 | 34326 | 3.4 | 4.0E-32 | 11432574 | NT | Homo sapiens AT-binding transcription factor 1 (ATBF1), mRNA |
| 7779 | 20335 | 34327 | 3.4 | 4.0E-32 | 11432574 | NT | Homo sapiens AT-binding transcription factor 1 (ATBF1), mRNA |
| 8554 | 21635 | | 0.93 | 4.0E-32 | BE084410.1 | EST_HUMAN | RC4-BT0311-141199-011-H06 BT0311 Homo sapiens cDNA |
| 468 | 13663 | 26898 | 2.84 | 3.0E-32 | Y17283.1 | NT | Homo sapiens FLI-1 gene, partial |
| 1484 | 14637 | 27721 | 15.82 | 3.0E-32 | AV731500.1 | EST_HUMAN | AV731500 HTF Homo sapiens cDNA clone HTFAKC07 5' |
| 2973 | 16149 | 29168 | 0.75 | 3.0E-32 | 5174574 | NT | Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 4 (MLLT4) mRNA |
| 2973 | 16149 | 29169 | 0.76 | 3.0E-32 | 5174574 | NT | Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 4 (MLLT4) mRNA |
| 9594 | 22649 | 36221 | 3.1 | 3.0E-32 | AV758634.1 | EST_HUMAN | AV758634 BM Homo sapiens cDNA clone BMFBH12 5' |
| 9594 | 22649 | 36222 | 3.1 | 3.0E-32 | AV758634.1 | EST_HUMAN | AV758634 BM Homo sapiens cDNA clone BMFBH12 5' |
| 11166 | 24237 | 37868 | 3.43 | 3.0E-32 | AA777621.1 | EST_HUMAN | z185a07.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:448600 3' similar to contains THR.13 THR repetitive element: |
| 12433 | 25307 | | 7.95 | 3.0E-32 | BE279086.1 | EST_HUMAN | 601156285F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3139701 5' |
| 12843 | 16149 | 29168 | 4.95 | 3.0E-32 | 5174574 | NT | Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 4 (MLLT4) mRNA |
| 12843 | 16149 | 29169 | 4.95 | 3.0E-32 | 5174574 | NT | Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 4 (MLLT4) mRNA |
| 13020 | 25671 | | 6.47 | 3.0E-32 | BE279086.1 | EST_HUMAN | 601156285F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3139701 5' |
| 6382 | 19551 | 32907 | 0.89 | 2.0E-32 | M35418.1 | NT | Human cell 12-lipoxygenase mRNA, complete cds |
| 6608 | 19768 | 33156 | 5.55 | 2.0E-32 | Z38133.1 | NT | H. sapiens mRNA for myosin |
| 6608 | 19768 | 33157 | 5.55 | 2.0E-32 | Z38133.1 | NT | H. sapiens mRNA for myosin |
| 8473 | 21654 | 35085 | 3.34 | 2.0E-32 | AA114294.1 | EST_HUMAN | z166c08.r1 Stralagene HeLa cell s3 937218 Homo sapiens cDNA clone IMAGE:563150 5' |
| 8473 | 21654 | 35086 | 3.34 | 2.0E-32 | AA114294.1 | EST_HUMAN | z166c08.r1 Stralagene HeLa cell s3 937218 Homo sapiens cDNA clone IMAGE:563150 5' |
| 13164 | 25750 | 31923 | 1.28 | 2.0E-32 | AV736449.1 | EST_HUMAN | AV736449 CB Homo sapiens cDNA clone CBFBIA08 5' |
| 13164 | 25750 | 31924 | 1.28 | 2.0E-32 | AV736449.1 | EST_HUMAN | AV736449 CB Homo sapiens cDNA clone CBFBIA08 5' |
| 3163 | 10338 | | 1.25 | 1.0E-32 | BE743209.1 | EST_HUMAN | 601573207F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3834493 5' |
| 7200 | 20066 | 33476 | 6.04 | 1.0E-32 | 11438769 | NT | Homo sapiens chromosome 11 open reading frame 9 (C11ORF9), mRNA |
| 8795 | 21874 | 35413 | 4.56 | 1.0E-32 | AA720574.1 | EST_HUMAN | hw21g02.e1 NCI_CGAP_GCB0 Homo sapiens cDNA clone IMAGE:1241138 3' similar to contains THR.13 THR repetitive element: |

Page 272 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 3570 | 16735 | | 4.8 | 9.0E-33 | BE327112.1 | EST_HUMAN | hw07c05.x1 NCL CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3182218 3' similar to TR:088539 088539 WW DOMAIN BINDING PROTEIN 11.; |
| 6550 | 10712 | | 3.17 | 9.0E-33 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exon 7-49, and partial cde, alternatively spliced |
| 8998 | 22057 | 36807 | 1.81 | 9.0E-33 | BF347228.1 | EST_HUMAN | 602021164F1 NCL CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4156670 5' |
| 11038 | 24117 | | 4.55 | 9.0E-33 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 62 | 13300 | 26320 | 2.73 | 7.0E-33 | 5031738 | NT | Homo sapiens short-chain alcohol dehydrogenase family member (HEP27) mRNA |
| 62 | 13300 | 26321 | 2.73 | 7.0E-33 | 5031736 | NT | Homo sapiens short-chain alcohol dehydrogenase family member (HEP27) mRNA |
| 2228 | 15362 | 28491 | 3.04 | 7.0E-33 | AI590115.1 | EST_HUMAN | to12b09.x1 NCL CGAP_U12 Homo sapiens cDNA clone IMAGE:2178809 3' similar to contains OFR.t1 OFR repetitive element; |
| 2714 | 16832 | | 7.95 | 7.0E-33 | AV730056.1 | EST_HUMAN | AV730056 HTF Homo sapiens cDNA clone HTFAVE06 5' |
| 3314 | 18487 | | 15 | 7.0E-33 | AW971907.1 | EST_HUMAN | EST1383396 IMAGE sequences, MAGI. Homo sapiens cDNA |
| 9147 | 22228 | | 0.87 | 7.0E-33 | X54890.1 | NT | Human hLRP mRNA for leukocyte common antigen-related peptide (protein-tyrosine phosphate) (EC 3.1.3.48) |
| 11087 | 24142 | 37777 | 1.88 | 7.0E-33 | BF347228.1 | EST_HUMAN | 602021164F1 NCL CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4156670 5' |
| 11526 | 24562 | 38268 | 1.59 | 7.0E-33 | AW971568.1 | EST_HUMAN | EST1383657 IMAGE sequences, MAGI. Homo sapiens cDNA |
| 12413 | 25292 | 32082 | 9.74 | 7.0E-33 | AA601416.1 | EST_HUMAN | nt16h01.st NCL CGAP_Ph41 Homo sapiens cDNA clone IMAGE:1100881 3' similar to contains L1.t1 L1 repetitive element; |
| 3830 | 16990 | | 0.93 | 6.0E-33 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 6192 | 18368 | 32717 | 0.91 | 6.0E-33 | F30631.1 | EST_HUMAN | HSPD21201 HM3 Homo sapiens cDNA clone s4000107H06 |
| 6192 | 18368 | 32718 | 0.91 | 6.0E-33 | F30631.1 | EST_HUMAN | HSPD21201 HM3 Homo sapiens cDNA clone s4000107H06 |
| 6778 | 21857 | 35400 | 1.95 | 6.0E-33 | JD4038.1 | NT | Human glyceraldehyde-3-phosphate dehydrogenase (GAPDH) gene, complete cds |
| 8899 | 21978 | 35517 | 3.12 | 6.0E-33 | 11429198 | NT | Homo sapiens similar to RAD23 (S. cerevisiae) homolog B (H. sapiens) (LOC63277), mRNA |
| 10214 | 23250 | 36839 | 2.03 | 6.0E-33 | 6755609 | NT | Mus musculus SRY-box containing gene 6 (Sox6), mRNA |
| 10214 | 23250 | 36840 | 2.03 | 6.0E-33 | 6755609 | NT | Mus musculus SRY-box containing gene 6 (Sox6), mRNA |
| 1818 | 14957 | | 1.8 | 5.0E-33 | BF379515.1 | EST_HUMAN | QV1-FT0168-100700-271-a02 FT0169 Homo sapiens cDNA |
| 1831 | 15074 | | 1.32 | 5.0E-33 | 11141884 | NT | Homo sapiens solute carrier family 6 (choline transporter), member 7 (SLC6A7), mRNA |
| 1947 | 15090 | 28180 | 1.63 | 6.0E-33 | 4507208 | NT | Homo sapiens spermidine synthase (SRM) mRNA |
| 1947 | 15090 | 28181 | 1.63 | 6.0E-33 | 4507208 | NT | Homo sapiens spermidine synthase (SRM) mRNA |
| 2346 | 15477 | | 2.92 | 5.0E-33 | AL163286.2 | NT | Homo sapiens chromosome 21 segment HS21C086 |
| 4169 | 17319 | 30312 | 0.66 | 5.0E-33 | AB014599.1 | NT | Homo sapiens mRNA for KIAA0699 protein, partial cds |
| 10454 | 23489 | 37087 | 0.82 | 5.0E-33 | AW264879.1 | EST_HUMAN | xq33f11.x1 NCL CGAP_Lu28 Homo sapiens cDNA clone IMAGE:2752461 3' |
| 10454 | 23489 | 37088 | 0.82 | 5.0E-33 | AW264879.1 | EST_HUMAN | xq33f11.x1 NCL CGAP_Lu28 Homo sapiens cDNA clone IMAGE:2752461 3' |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 12212 | 25165 | | 1.45 | 5.0E-33 | 11433063 | NT | Homo sapiens ubiquitin protein ligase E3A (human papilloma virus E6-associated protein, Angelman syndrome) (UBE3A), mRNA |
| 1162 | 14316 | | 2.25 | 4.0E-33 | AL163207.2 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 2194 | 15329 | 28454 | 3.37 | 4.0E-33 | 4758987 | NT | Homo sapiens RAB1, member RAS oncogene family (RAB1) mRNA |
| 2491 | 15618 | | 1.16 | 4.0E-33 | AAG26621.1 | EST_HUMAN | ab51b11.1 Stratagene lung carcinoma 937218 Homo sapiens cDNA clone IMAGE:844317 5' similar to contains Alu repetitive element; contains MER28.b2 MER28 repetitive element; |
| 2610 | 15734 | 28850 | 4.78 | 4.0E-33 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 4606 | 17743 | 30722 | 2.38 | 4.0E-33 | AW293349.1 | EST_HUMAN | UJH-B12-ah1-c-03-Q-U1.s1 NCL CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2727149 3' |
| 5519 | 19717 | 31731 | 24.75 | 4.0E-33 | AA053053.1 | EST_HUMAN | 271a08.r1 Stratagene colon (#937204) Homo sapiens cDNA clone IMAGE:510038 5' similar to gb:X12671_ma1 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1 (HUMAN); |
| 6522 | 18687 | 33060 | 0.79 | 4.0E-33 | 8393994 | NT | Homo sapiens polymerase (DNA directed), alpha (POLA), mRNA |
| 6522 | 19887 | 33061 | 0.79 | 4.0E-33 | 8393994 | NT | Homo sapiens polymerase (DNA directed), alpha (POLA), mRNA |
| 1113 | 14278 | | 5.62 | 3.0E-33 | BE350127.1 | EST_HUMAN | h09g01.x1 NCL CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3149256 3' similar to contains MER28.b3 MER28 repetitive element; |
| 1114 | 14278 | | 5.63 | 3.0E-33 | BE360127.1 | EST_HUMAN | h09g01.x1 NCL CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3149256 3' similar to contains MER28.b3 MER28 repetitive element; |
| 2522 | 16084 | | 1.16 | 3.0E-33 | AV647851.1 | EST_HUMAN | AV647851 GLC Homo sapiens cDNA clone GLOBCE09 3' |
| 10655 | 23689 | 37298 | 0.87 | 3.0E-33 | AA881510.1 | EST_HUMAN | ak32b12.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1407647 3' similar to TR:Q13579 |
| 18 | 13256 | | 1.67 | 2.0E-33 | AI160189.1 | EST_HUMAN | Q13579 MARINER TRANSPOSASE. ; |
| 107 | 13256 | | 5.53 | 2.0E-33 | AI160189.1 | EST_HUMAN | qb67g03.x1 Soares_fetal_heart_NbHH10W Homo sapiens cDNA clone IMAGE:1705204 3' similar to contains OFR.H1 OFR repetitive element ; |
| 4639 | 17677 | | 4.53 | 2.0E-33 | BE159039.1 | EST_HUMAN | qb67g03.x1 Soares_fetal_heart_NbHH10W Homo sapiens cDNA clone IMAGE:1705204 3' similar to contains OFR.H1 OFR repetitive element ; |
| 5100 | 19228 | 31199 | 8.64 | 2.0E-33 | AA828883.1 | EST_HUMAN | ab51g11.r1 Stratagene lung carcinoma 937218 Homo sapiens cDNA clone IMAGE:844398 5' similar to |
| 5204 | 19325 | 31294 | 1.6 | 2.0E-33 | 11421332 | NT | gb:X00734_cds1 TUBULIN BETA-5 CHAIN (HUMAN); |
| 6204 | 19325 | 31295 | 1.6 | 2.0E-33 | 11421332 | NT | Homo sapiens hypothetical protein SIRP-b2 (SIRP-b2), mRNA |
| 6553 | 19716 | 33091 | 1.39 | 2.0E-33 | AI277482.1 | EST_HUMAN | q196d01.x1 Soares_NbHMPu_S1 Homo sapiens cDNA clone IMAGE:1880167 3' |
| 9301 | 22377 | | 2.15 | 2.0E-33 | AID52256.1 | EST_HUMAN | oz21d03.x1 Soares_fetal_liver_spleen_1NFL3_S1 Homo sapiens cDNA clone IMAGE:1876973 3' similar to gb:M29530 TRANSLATIONAL INITIATION FACTOR 2 BETA SUBUNIT (HUMAN); |
| 9 | 13247 | | 1.61 | 1.0E-33 | AF003528.1 | NT | Homo sapiens X-linked anhidrotic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 7585 | 20637 | 34113 | 0.86 | 1.0E-33 | M13975.1 | NT | Homo sapiens protein kinase C beta-II type (PRKCB1) mRNA, complete cds |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 10227 | 26229 | | 1.4 | 1.0E-33 | U60822.1 | NT | Human dystrophin (DMD) gene, exons 7, 8 and 9, and partial cds |
| 11602 | 24655 | 38340 | 1.56 | 1.0E-33 | AW958818.1 | EST_HUMAN | QV3-BN0047-230200-102-603 BN0047 Homo sapiens cDNA |
| 11992 | 24947 | 38662 | 2.44 | 1.0E-33 | U60822.1 | NT | Human dystrophin (DMD) gene, exons 7, 8 and 9, and partial cds |
| 12788 | 25511 | | 1.25 | 1.0E-33 | AW904491.1 | EST_HUMAN | RCS-NIN1055-280400-021-003 NIN1055 Homo sapiens cDNA |
| 12828 | 13247 | | 5.7 | 1.0E-33 | AF003528.1 | NT | Homo sapiens X-linked arylsulphatase protein gene (EDA), exon 2 and flanking repeat regions |
| 12860 | 25626 | 31979 | 2.19 | 1.0E-33 | AV727809.1 | EST_HUMAN | AV727809 HTC Homo sapiens cDNA clone HTCCNC12 5' |
| 13179 | 26768 | | 4.77 | 9.0E-34 | AJ271735.1 | NT | Homo sapiens Xq pseudautosomal region; segment 1/2 |
| 2240 | 16373 | 28501 | 0.96 | 8.0E-34 | 8922751 | NT | Homo sapiens hypothetical protein FLJ10900 (FLJ10900), mRNA |
| 4620 | 17767 | 30739 | 1.93 | 8.0E-34 | BE082570.1 | EST_HUMAN | QV2-B10288-071288-019-g07 B10258 Homo sapiens cDNA |
| 7974 | 21024 | 34537 | 0.67 | 8.0E-34 | BE069892.1 | EST_HUMAN | NR4-B10399-200100-001-h03 B10399 Homo sapiens cDNA |
| 1478 | 14629 | 27714 | 2.5 | 7.0E-34 | T70845.1 | EST_HUMAN | yf15605.r1 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:108320 5' |
| 10204 | 14629 | 27714 | 0.54 | 7.0E-34 | T70845.1 | EST_HUMAN | yf15605.r1 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:108320 5' |
| 12482 | 26334 | | 3.85 | 7.0E-34 | H12886.1 | EST_HUMAN | y14c10.r1 Soares placenta NB21P Homo sapiens cDNA clone IMAGE:148722 5' |
| 483 | 13677 | 26711 | 1.74 | 6.0E-34 | U10891.1 | NT | Human G2 protein mRNA, partial cds |
| 483 | 13677 | 26712 | 1.74 | 6.0E-34 | U10891.1 | NT | Human G2 protein mRNA, partial cds |
| 5247 | 18368 | 31335 | 1.68 | 6.0E-34 | AW988311.1 | EST_HUMAN | PM0-BN0065-100300-001-c08 BN0065 Homo sapiens cDNA |
| 12290 | 25216 | 32099 | 2.22 | 6.0E-34 | U03686.1 | NT | Mus musculus DAB/2J hair-specific (hac-1) gene |
| 1929 | 15072 | 31257 | 3.15 | 5.0E-34 | 7706500 | NT | Homo sapiens Npw38-binding protein NpwBP (LOC51729), mRNA |
| 5173 | 18295 | 31257 | 5.24 | 5.0E-34 | U30883.1 | NT | Human splicing factor SRP55-1 (SRP-55) mRNA, complete cds |
| 8067 | 22146 | 35693 | 1.17 | 5.0E-34 | AF079779.1 | NT | Rattus norvegicus putative four repeat ion channel mRNA, complete cds |
| 10890 | 23974 | 37605 | 2.02 | 5.0E-34 | AB037856.1 | NT | Homo sapiens mRNA for KIAA1435 protein, partial cds |
| 11532 | 24588 | | 1.83 | 5.0E-34 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 2054 | 16196 | 28309 | 2.09 | 4.0E-34 | AI804667.1 | EST_HUMAN | hs4c08.x1 NCL CGAP_P28 Homo sapiens cDNA clone IMAGE:2249184 3' |
| 3241 | 18415 | 29430 | 0.9 | 4.0E-34 | 5803168 | NT | Homo sapiens splicing factor 3a, subunit 3, 60kD (SF3A3), mRNA |
| 5981 | 19188 | 32489 | 0.62 | 4.0E-34 | AA861773.1 | EST_HUMAN | ak35c01.s1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:1407638 3' |
| 9236 | 22315 | 35857 | 0.83 | 4.0E-34 | BF209778.1 | EST_HUMAN | 601874950F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4102213 5' |
| 6361 | 19631 | 32880 | 0.86 | 3.0E-34 | M37277.1 | NT | Human Ig germline H-chain D-region genes, partial cds |
| 11420 | 24481 | | 2.96 | 3.0E-34 | BF035327.1 | EST_HUMAN | 601459531F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3882088 5' |
| 9192 | 22230 | 35774 | 0.75 | 2.0E-34 | AI678101.1 | EST_HUMAN | wd35g06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2330170 3' similar to contains MER29.12 MER29 repetitive element |
| 9192 | 22230 | 35775 | 0.75 | 2.0E-34 | AI678101.1 | EST_HUMAN | wd35g06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2330170 3' similar to contains MER29.12 MER29 repetitive element |
| 11431 | 24492 | 38156 | 8.64 | 2.0E-34 | P51805 | SWISSPROT | PLEXIN 4 PRECURSOR (TRANSMEMBRANE PROTEIN SEX) |

Page 275 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO. | Exon SEQ ID NO. | ORF SEQ ID NO. | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 11431 | 24492 | 38157 | 8.54 | 2.0E-34 | P51805 | SWISSPROT | PLEXIN 4 PRECURSOR (TRANSMEMBRANE PROTEIN SEX) |
| 1534 | 14687 | 27767 | 10.13 | 1.0E-34 | P12238 | SWISSPROT | ADP-ATP CARRIER PROTEIN, LIVER ISOFORM T2 (ADP/ATP TRANSLOCASE 3) (ADENINE NUCLEOTIDE TRANSLOCATOR 3) (ANT 3) |
| 1738 | 14887 | | 7.18 | 1.0E-34 | AU136024.1 | EST_HUMAN | AU136024 PLACE1 Homo sapiens cDNA clone PLACE1003383 5' |
| 3764 | 16925 | 29827 | 2.51 | 1.0E-34 | AF003528.1 | NT | Homo sapiens X-linked anhidrotic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 4181 | 17331 | 30323 | 0.79 | 1.0E-34 | AY008397.1 | NT | Homo sapiens WNT3 precursor (WNT3) mRNA, complete cds |
| 4181 | 17331 | 30324 | 0.79 | 1.0E-34 | AY008397.1 | NT | Homo sapiens WNT3 precursor (WNT3) mRNA, complete cds |
| 4602 | 17739 | | 8.26 | 1.0E-34 | BE071414.1 | EST_HUMAN | RC2-BT0506-240400-016-H08 BT0508 Homo sapiens cDNA |
| 6266 | 19440 | 32787 | 2.26 | 1.0E-34 | BE874062.1 | EST_HUMAN | 601484430F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3886999 5' |
| 6266 | 19440 | 32788 | 2.26 | 1.0E-34 | BE874062.1 | EST_HUMAN | 601484430F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3886999 5' |
| 9527 | 22592 | 38163 | 0.84 | 1.0E-34 | P23268 | SWISSPROT | OLFACTORY RECEPTOR-LIKE PROTEIN F5 |
| 8898 | 22638 | 38523 | 8.07 | 1.0E-34 | AL036635.1 | EST_HUMAN | DKFp554A1569.1 364 (synonym: hfb2) Homo sapiens cDNA clone DKFp554A1569 5' |
| 11459 | 24518 | 38186 | 1.51 | 1.0E-34 | BE781780.1 | EST_HUMAN | 601470592F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3873478 5' |
| 11459 | 24518 | 38187 | 1.51 | 1.0E-34 | BE781780.1 | EST_HUMAN | 601470592F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3873478 5' |
| 11473 | 24532 | 38202 | 2.92 | 1.0E-34 | 11438599 | NT | Homo sapiens nucleobindin 2 (NUCB2), mRNA |
| 12680 | 26125 | | 2.44 | 1.0E-34 | AA807097.1 | EST_HUMAN | cc31c11.s1 NCL_CGAP_G031 Homo sapiens cDNA clone IMAGE:1351316 3' similar to gb:X88203 |
| 12680 | 26880 | | 5.84 | 1.0E-34 | AL163210.2 | NT | TYROSINE-PROTEIN KINASE RECEPTOR FLT4 PRECURSOR (HUMAN); |
| 3735 | 16886 | 28800 | 1.3 | 0.0E-35 | AW663302.1 | EST_HUMAN | Homo sapiens chitranosome 21 segment HS21C010 |
| 232 | 13453 | | 7.21 | 0.0E-35 | 6031190 | NT | h177b06.y1 NCL_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2868787 5' |
| 1776 | 14925 | 28019 | 3.63 | 0.0E-35 | BF589937.1 | EST_HUMAN | Homo sapiens prohibitin (PHB) mRNA |
| 1776 | 14925 | 28019 | 3.63 | 0.0E-35 | BF589937.1 | EST_HUMAN | ne33a08.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3258134 3' similar to TR:O75912 |
| 4889 | 18118 | 31097 | 2.61 | 0.0E-35 | BF589937.1 | EST_HUMAN | O75912 DIACYLGLYCEROL KINASE IOTA ; |
| 10929 | 24011 | 37645 | 1.53 | 0.0E-35 | BE378480.1 | EST_HUMAN | ne33a08.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3258134 3' similar to TR:O75912 |
| 12404 | 25283 | | 5.89 | 0.0E-35 | BF589937.1 | EST_HUMAN | O75912 DIACYLGLYCEROL KINASE IOTA ; |
| 6813 | 19773 | 33164 | 1.61 | 7.0E-35 | 11425417 | NT | 601809588F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:4040324 5' |
| 1445 | 14598 | 27875 | 1.06 | 6.0E-35 | AA757115.1 | EST_HUMAN | 601230468F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3608513 5' |
| 2025 | 15166 | 28271 | 4.63 | 6.0E-35 | 6005975 | NT | 602184624T1 NIH_MGC_42 Homo sapiens cDNA clone IMAGE:4300660 3' |
| 4164 | 17314 | 30309 | 0.8 | 6.0E-35 | AW287191.1 | EST_HUMAN | Homo sapiens phosphatidylinositol glycan, class I (PIGL), mRNA |
| 8081 | 21163 | 34680 | 4.03 | 6.0E-35 | 6005921 | NT | af63h03.s1 Soares_testis_NHT Homo sapiens cDNA clone 1306397 3' |
| 8906 | 21995 | 36524 | 0.57 | 6.0E-35 | X94232.1 | NT | Homo sapiens zinc finger protein 208 (ZNF208), mRNA |
| | | | | | | | UHH-BW0-ajd-4-09-O-U1.s1 NCL_CGAP_Sub6 Homo sapiens cDNA clone IMAGE:2731433 3' |
| | | | | | | | Homo sapiens triple functional domain (PTPRF interacting) (TRIO), mRNA |
| | | | | | | | H.sapiens mRNA for novel T-cell activation protein |

Page 276 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 8806 | 21885 | 35625 | 0.57 | 6.0E-35 | X94232.1 | NT | H.sapiens mRNA for novel T-cell activation protein |
| 9867 | 22807 | 36482 | 0.61 | 6.0E-35 | AB002364.1 | NT | Human mRNA for KIAA0398 gene, partial cds |
| 10107 | 23145 | 36743 | 2.97 | 6.0E-35 | AB037788.1 | NT | Human sapiens mRNA for KIAA1335 protein, partial cds |
| 148 | 13373 | 28408 | 0.61 | 5.0E-35 | AF154890.1 | NT | Human sapiens carboxyl phosphate synthetase 1 mRNA, complete cds |
| 1746 | 14895 | 27989 | 2.26 | 5.0E-35 | X63392.1 | NT | H.sapiens immunoglobulin kappa light chain variable region L14 |
| 2844 | 15958 | 29067 | 0.99 | 5.0E-35 | AB007866.2 | NT | Human sapiens mRNA for KIAA0406 protein, partial cds |
| 3074 | 16250 | 29271 | 2.87 | 5.0E-35 | 6812639 | NT | Human sapiens Ring1 and YY1 binding protein (RYBP), mRNA |
| 4529 | 17667 | 30853 | 1.72 | 5.0E-35 | AF023288.1 | NT | Human sapiens cdk2 kinase (CLK2), protein1, cote1, glucocorticoidase (GSA), and melanin genes, complete cds; melanin pseudogene and glucocorticoidase pseudogene; and thrombospondin3 (THBS3) gene, partial cds |
| 8378 | 21459 | | 4.25 | 5.0E-35 | BE890992.1 | EST_HUMAN | 601431984F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3917229 5' |
| 8405 | 21486 | 35016 | 2.17 | 5.0E-35 | AI208785.1 | EST_HUMAN | qg38c05.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1837448 3' similar to SW:Y249_HUMAN Q92539 HYPOTHETICAL PROTEIN KIAA0249 ; |
| 8405 | 21486 | 35016 | 2.17 | 5.0E-35 | AI208785.1 | EST_HUMAN | qg38c05.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1837448 3' similar to SW:Y249_HUMAN Q92539 HYPOTHETICAL PROTEIN KIAA0249 ; |
| 11461 | 24611 | | 2.94 | 5.0E-35 | AA001786.1 | EST_HUMAN | zh84f12.1 Soares_fetal_liver_spleen_INFLS_S1 Homo sapiens cDNA clone IMAGE:428015 5' |
| 1485 | 14819 | 27703 | 20.46 | 4.0E-35 | BE267807.1 | EST_HUMAN | 601108718F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3350405 5' |
| 1862 | 15008 | 28114 | 11.21 | 4.0E-35 | H91193.1 | EST_HUMAN | y08a07.1 Soares_fetal_liver_spleen_INFLS Homo sapiens cDNA clone IMAGE:241236 6' similar to contains PTR5 repetitive element ; |
| 7356 | 20437 | | 1.07 | 4.0E-35 | BE350127.1 | EST_HUMAN | h09g01.x1 NCI_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3146258 3' similar to contains MER29.b3 MER29 repetitive element ; |
| 8715 | 21795 | 35332 | 8.05 | 4.0E-35 | AL040596.1 | EST_HUMAN | DKFZp434L148_r1 434 (synonym: hfac3) Homo sapiens cDNA clone DKFZp434L148 5' |
| 12098 | 25078 | 38786 | 2.5 | 4.0E-35 | AF114156.1 | NT | Homo sapiens Y-linked zinc finger protein (ZFY) gene, complete cds |
| 1610 | 14763 | 27843 | 33.92 | 3.0E-35 | BE268182.1 | EST_HUMAN | 601125260F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3345063 5' |
| 2408 | 15539 | | 2.64 | 3.0E-35 | AF224492.1 | NT | Homo sapiens phospholipid scramblase 1 gene, complete cds |
| 5456 | 18856 | 31634 | 23.43 | 3.0E-35 | BF433100.1 | EST_HUMAN | 7c25a08.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3565361 3' similar to TR:Q9QZH7 Q8QZH7 F-BOX PROTEIN FBL2 ; |
| 5456 | 18856 | 31635 | 23.43 | 3.0E-35 | BF433100.1 | EST_HUMAN | 7c25a08.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3565361 3' similar to TR:Q8QZH7 Q8QZH7 F-BOX PROTEIN FBL2 ; |
| 9689 | 22798 | | 1.45 | 3.0E-35 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 10378 | 23413 | 37022 | 1.6 | 3.0E-35 | AW003063.1 | EST_HUMAN | wf03a06.x1 NCI_CGAP_G08 Homo sapiens cDNA clone IMAGE:2480432 3' similar to SW:POL1_HUMAN P102668 RETROVIRUS-RELATED POL POLYPOLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE ; |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 111 | 16005 | 26372 | 1.25 | 2.0E-35 | N88965.1 | EST_HUMAN | K6932F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone K6932 5' similar to |
| 1215 | 14376 | 27438 | 1.89 | 2.0E-35 | T11908.1 | EST_HUMAN | REPETITIVE ELEMENT |
| 2292 | 15424 | 28558 | 4.56 | 2.0E-35 | AB018413.1 | NT | A971F Heart Homo sapiens cDNA clone A871 |
| 2748 | 15865 | 28978 | 1.13 | 2.0E-35 | AW66505.1 | EST_HUMAN | Homo sapiens mRNA for Gab2, complete cds |
| 3386 | 16555 | 29570 | 1.08 | 2.0E-35 | 6912459 | NT | h88a12.x1 Soares NFL_T_GBC S1 Homo sapiens cDNA clone IMAGE:2879188 3' similar to |
| 3386 | 16558 | 29571 | 1.08 | 2.0E-35 | 6912459 | NT | SW:TR12_HUMAN Q14669 THYROID RECEPTOR INTERACTING PROTEIN 12; |
| 3647 | 16910 | | 0.77 | 2.0E-35 | AB020702.1 | NT | Homo sapiens Grb2-associated binder 2 (KIAA0571), mRNA |
| 4019 | 17178 | 30184 | 0.85 | 2.0E-35 | BE247575.1 | EST_HUMAN | Homo sapiens mRNA for KIAA0895 protein, partial cds |
| 4019 | 17178 | 30185 | 0.86 | 2.0E-35 | BE247575.1 | EST_HUMAN | TCBAP2E-4328 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens |
| 4792 | 17627 | 32186 | 3.01 | 2.0E-35 | H49239.1 | EST_HUMAN | cDNA clone TCBAP 4328 |
| 6700 | 18804 | 32186 | 1.93 | 2.0E-35 | BF332417.1 | EST_HUMAN | Yq19a12.r1 Soares fetal liver spleen 1NfLS Homo sapiens cDNA clone IMAGE:274079 5' |
| 7253 | 20336 | 33785 | 0.6 | 2.0E-35 | BE832636.1 | EST_HUMAN | QV0-BT0701-210400-193-b04 BT0701 Homo sapiens cDNA |
| 7253 | 20336 | 33786 | 0.8 | 2.0E-35 | BE832636.1 | EST_HUMAN | GM2-MT0125-280700-297-G02 MT0125 Homo sapiens cDNA |
| 11038 | 24116 | 37749 | 2.93 | 2.0E-35 | X69417.1 | NT | GM2-MT0125-280700-297-G02 MT0125 Homo sapiens cDNA |
| 12167 | 16556 | 29570 | 1.22 | 2.0E-35 | 6912459 | NT | H. sapiens PROS-27 mRNA |
| 12167 | 16556 | 29571 | 1.22 | 2.0E-35 | 6912459 | NT | Homo sapiens Grb2-associated binder 2 (KIAA0571), mRNA |
| 12342 | 25247 | 32111 | 1.33 | 2.0E-35 | BE804978.1 | EST_HUMAN | Homo sapiens Grb2-associated binder 2 (KIAA0571), mRNA |
| 12342 | 25247 | 32112 | 1.33 | 2.0E-35 | BE804978.1 | EST_HUMAN | 601496774F1 NIH_MGC 70 Homo sapiens cDNA clone IMAGE:3886399 5' |
| 12931 | 25814 | | 7.22 | 2.0E-35 | AL163210.2 | NT | 601496774F1 NIH_MGC 70 Homo sapiens cDNA clone IMAGE:3886399 5' |
| 13056 | 16005 | 26372 | 1.74 | 2.0E-35 | N88965.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C010 |
| 47 | 13286 | 26295 | 5.76 | 1.0E-35 | AA631949.1 | EST_HUMAN | K6932F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone K6932 5' similar to |
| 47 | 13286 | 26296 | 5.76 | 1.0E-35 | AA631949.1 | EST_HUMAN | REPETITIVE ELEMENT |
| 771 | 13952 | 27000 | 35.82 | 1.0E-35 | AW389473.1 | EST_HUMAN | frf16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1 |
| 771 | 13952 | 27001 | 35.82 | 1.0E-35 | AW389473.1 | EST_HUMAN | frf16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1 |
| 832 | 14107 | | 1.28 | 1.0E-35 | T87847.1 | EST_HUMAN | IL2-ST0162-131099-008-d12 ST0162 Homo sapiens cDNA |
| 2607 | 15730 | 28847 | 1.89 | 1.0E-35 | 7705994 | NT | IL2-ST0162-131099-008-d12 ST0162 Homo sapiens cDNA |
| 2828 | 15840 | 29050 | 1.34 | 1.0E-35 | BE350127.1 | EST_HUMAN | IL2-ST0162-131099-008-d12 ST0162 Homo sapiens cDNA |
| | | | | | | | ydb3a01.r1 Soares fetal liver spleen 1NfLS Homo sapiens cDNA clone IMAGE:116762 5' similar to |
| | | | | | | | SP-A44282 A44282 RETROVIRUS-RELATED POLYPROTEIN - HUMAN; |
| | | | | | | | h09g01.x1 NCI_CGAP_K1d13 Homo sapiens cDNA clone IMAGE:3146286 3' similar to contains MER28.b3 |
| | | | | | | | MER29 repetitive element; |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 2826 | 16940 | 29051 | 1.34 | 1.0E-35 | BE350127.1 | EST_HUMAN | h109g01.x1 NCI_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3148268 3' similar to contains MER29.B3 |
| 3212 | 16398 | 29397 | 1.87 | 1.0E-35 | 6006030 | NT | MER29 repetitive element ; |
| 3232 | 16406 | 29418 | 1.67 | 1.0E-35 | AV650422.1 | EST_HUMAN | Homo sapiens transcription elongation factor B (SIII), polypeptide 1-like (TOEB1L) mRNA |
| 3232 | 16406 | 29419 | 1.67 | 1.0E-35 | AV650422.1 | EST_HUMAN | AV650422 GLC Homo sapiens cDNA clone GLCCEP08 3' |
| 4542 | 17680 | 30661 | 4.82 | 1.0E-35 | 7656905 | NT | AV650422 GLC Homo sapiens cDNA clone GLCCEP08 3' |
| 4542 | 17680 | 30662 | 4.82 | 1.0E-35 | 7656905 | NT | Mus musculus activin receptor interacting protein 1 (Arip1-pending), mRNA |
| 5627 | 18821 | 31898 | 1.48 | 1.0E-35 | 11528236 | NT | Homo sapiens chromatin assembly factor 1, subunit B (p60) (CHAF1B), mRNA |
| 7135 | 18561 | 31476 | 0.74 | 1.0E-35 | AW808665.1 | EST_HUMAN | MR1-STO111-111199-011-d07 ST0111 Homo sapiens cDNA |
| 7135 | 18561 | 31478 | 0.74 | 1.0E-35 | AW808665.1 | EST_HUMAN | MR1-STO111-111199-011-d07 ST0111 Homo sapiens cDNA |
| 7652 | 20720 | 34196 | 0.99 | 1.0E-35 | AB033105.1 | NT | Homo sapiens mRNA for KIAA1278 protein, partial cds |
| 7819 | 20874 | 34373 | 0.91 | 1.0E-35 | 11418002 | NT | Homo sapiens KIAA0846 gene product (KIAA0846), mRNA |
| 9742 | 25661 | 36383 | 2.46 | 1.0E-35 | AU158595.1 | EST_HUMAN | AU158595 PLAGE3 Homo sapiens cDNA clone PLACE3000382 3' |
| 9742 | 25661 | 36384 | 2.46 | 1.0E-35 | AU158595.1 | EST_HUMAN | AU158595 PLAGE3 Homo sapiens cDNA clone PLACE3000382 3' |
| 10805 | 23838 | 37482 | 0.72 | 1.0E-35 | BF589594.1 | EST_HUMAN | naa06d06.x1 NCI_CGAP_P128 Homo sapiens cDNA clone IMAGE:3254051 3' similar to TR:O31341 |
| 10805 | 23838 | 37483 | 0.72 | 1.0E-35 | BF589594.1 | EST_HUMAN | O31341 BETA-GALACTOSIDASE ; |
| 12055 | 25036 | 38743 | 1.49 | 1.0E-35 | AB028980.1 | NT | naa06d06.x1 NCI_CGAP_P128 Homo sapiens cDNA clone IMAGE:3254051 3' similar to TR:O31341 |
| 12055 | 25036 | 38744 | 1.49 | 1.0E-35 | AB028980.1 | NT | O31341 BETA-GALACTOSIDASE ; |
| 12062 | 25043 | | 2.04 | 1.0E-35 | AI525119.1 | EST_HUMAN | Homo sapiens mRNA for KIAA1057 protein, partial cds |
| 12188 | 26077 | | 6.35 | 1.0E-35 | 11418274 | NT | Homo sapiens mRNA for KIAA1057 protein, partial cds |
| 12405 | 25284 | | 1.26 | 1.0E-35 | 11418110 | NT | promina-7 D01.r bvtumor Homo sapiens cDNA 5' |
| 12806 | 25539 | | 2.49 | 1.0E-35 | BE782832.1 | EST_HUMAN | Homo sapiens fibulin 1 (FBLN1), mRNA |
| 8131 | 19310 | 32850 | 0.67 | 8.0E-36 | X78478.1 | NT | Homo sapiens casein kinase 1, epsilon (CSNK1E), mRNA |
| 9430 | 22504 | 36070 | 0.76 | 8.0E-36 | AA348480.1 | EST_HUMAN | 601584833F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3938985 5' |
| 2897 | 16173 | 29192 | 1.53 | 7.0E-36 | AW857578.1 | EST_HUMAN | B. bovis BBSc mRNA for cdhrerin |
| 3188 | 16363 | | 5.25 | 7.0E-36 | 4557498 | NT | EST T54938 Hippocampus II Homo sapiens cDNA 5' end similar to similar to endogenous retrovirus 9, 5' LTR |
| 6273 | 18392 | 31360 | 1.09 | 7.0E-36 | Q27409 | SWISSPROT | CM1-CT0315-091298-063-407 CT0315 Homo sapiens cDNA |
| 5273 | 18392 | 31361 | 1.09 | 7.0E-36 | Q27409 | SWISSPROT | Homo sapiens C-terminal binding protein 2 (CTBP2) mRNA |
| 7832 | 20887 | 34399 | 6.31 | 7.0E-36 | U06872.1 | NT | ADHESIVE PLAQUE MATRIX PROTEIN PRECURSOR (FOOT PROTEIN 1) (MGFP-1) |
| 7832 | 20887 | 34399 | 6.31 | 7.0E-36 | U06872.1 | NT | ADHESIVE PLAQUE MATRIX PROTEIN PRECURSOR (FOOT PROTEIN 1) (MGFP-1) |
| 7832 | 20887 | 34399 | 6.31 | 7.0E-36 | U06872.1 | NT | Human carciocarcinoma antigen gene family member 12 (CGM12) gene, exons L and LN |
| 12570 | 25388 | 32040 | 27.38 | 7.0E-36 | AF062051.1 | NT | Human carciocarcinoma antigen gene family member 12 (CGM12) gene, exons L and LN |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO. | Exon SEQ ID NO. | ORF SEQ ID NO. | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 2060 | 16201 | 28316 | 1.92 | 6.0E-36 | 7706822 | NT | Homo sapiens nhlh2n 2 (NINJ2), mRNA |
| 2490 | 15617 | | 5.59 | 6.0E-36 | AB033346.1 | NT | Homo sapiens TOL8 gene, exon 12 |
| 3729 | 16890 | 29894 | 0.59 | 6.0E-36 | BF515101.1 | EST_HUMAN | UJH-BW1-avr-c-12-Q-UJ.at NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3083542 3' |
| 5448 | 18846 | 31624 | 7.17 | 6.0E-36 | AI435169.1 | EST_HUMAN | th93506.x1 Soares NSF_F8_9W_OT_PA_P_31 Homo sapiens cDNA clone IMAGE:2126185 3' similar to dbM11949 PANCREATIC SECRETORY TRYPSIN INHIBITOR PRECURSOR (HUMAN); |
| 7258 | 20341 | 33782 | 3.03 | 6.0E-36 | AW780143.1 | EST_HUMAN | h006102.x1 NCI_CGAP_Cor14 Homo sapiens cDNA clone IMAGE:3036627 3' similar to SW:IMA2_HUMAN |
| 8853 | 21832 | 36471 | 4.52 | 6.0E-36 | AF208161.1 | NT | P52292 IMPORTIN ALPHA-2 SUBUNIT ; |
| 10430 | 23465 | | 0.63 | 6.0E-36 | C16927.1 | EST_HUMAN | Homo sapiens eynycin precursor, mRNA, complete cds |
| 11841 | 24830 | 38521 | 3.49 | 6.0E-36 | AI380499.1 | EST_HUMAN | C16927 Clontech human aorta polyA+ mRNA (#6572) Homo sapiens cDNA clone GEN-835C11 5' |
| 140 | 13366 | 26389 | 16.16 | 6.0E-36 | AJ271735.1 | NT | NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3607289 5' |
| 2809 | 15923 | 29033 | 21.09 | 6.0E-36 | BE988436.1 | EST_HUMAN | Homo sapiens Xq pseudautosomal region, segment 1/2 |
| 3700 | 16861 | 29863 | 3.24 | 6.0E-36 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 4909 | 18039 | 31028 | 1.31 | 6.0E-36 | 5729729 | NT | Homo sapiens API5-like 1 (API5L1), mRNA |
| 4909 | 18039 | 31029 | 1.31 | 6.0E-36 | 5729729 | NT | Homo sapiens API5-like 1 (API5L1), mRNA |
| 7966 | 21016 | 34528 | 0.69 | 6.0E-36 | 11078227 | NT | Homo sapiens N-ethylmaleimide-sensitive factor (NSF), mRNA |
| 12165 | 13368 | 26309 | 6.11 | 6.0E-36 | AJ271735.1 | NT | Homo sapiens Xq pseudautosomal region, segment 1/2 |
| 12458 | 25322 | 32095 | 2.36 | 6.0E-36 | 11417862 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 1252 | 14411 | 27473 | 1.57 | 4.0E-36 | BE010038.1 | EST_HUMAN | PM3-BN0176-100400-001-g04 BN0176 Homo sapiens cDNA |
| 1677 | 14826 | 27013 | 1.36 | 4.0E-36 | BE382574.1 | EST_HUMAN | 601298574F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:3628386 5' |
| 2287 | 15428 | | 4.14 | 4.0E-36 | AW247772.1 | EST_HUMAN | 2820020.6prtm NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2820020 5' |
| 3435 | 16603 | 28622 | 1.1 | 4.0E-36 | BE389289.1 | EST_HUMAN | 601282266F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3604188 5' |
| 4877 | 18008 | 30992 | 0.69 | 4.0E-36 | BE389289.1 | EST_HUMAN | 601282266F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3604188 5' |
| 5833 | 19024 | | 0.96 | 4.0E-36 | R64023.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C004 |
| 6180 | 19366 | 32704 | 2.49 | 4.0E-36 | 11497041 | NT | Y19105.r1 Soares placenta NK2-IP Homo sapiens cDNA clone IMAGE:139713 5' |
| 7831 | 20886 | 34388 | 1.78 | 4.0E-36 | M33320.1 | NT | Homo sapiens a disintegrin and metalloproteinase domain 22 (ADAM22), transcript variant 3, mRNA |
| 8752 | 21831 | 35369 | 1.45 | 4.0E-36 | D87675.1 | NT | Human platelet Glycoprotein IIb (GPIIb) gene, exons 2-29 |
| 8752 | 21831 | 35370 | 1.45 | 4.0E-36 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 11235 | 24304 | 37841 | 3.13 | 4.0E-36 | AA400370.1 | EST_HUMAN | zu66c10.r1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:743260 5' |
| 12476 | 25328 | | 1.91 | 4.0E-36 | 11420516 | NT | Homo sapiens nuclear factor of activated T-cells, cytoplasmic 2 (NFATC2), mRNA |
| 12520 | 25951 | | 4.27 | 4.0E-36 | AV753629.1 | EST_HUMAN | AV753629 TP Homo sapiens cDNA clone TPGABH01 5' |
| 714 | 13896 | 26834 | 2.93 | 3.0E-36 | AF088610.1 | NT | Homo sapiens neuroxin III-alpha gene, partial cds |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 2373 | 15504 | 28630 | 1.19 | 3.0E-36 | 7662401 | NT | Homo sapiens KIAA0852 protein (KIAA0852), mRNA |
| 4824 | 17761 | 30743 | 7.5 | 3.0E-36 | 10181139 | NT | Mus musculus Unc119A, mRNA |
| 11368 | 24429 | 38086 | 1.84 | 3.0E-36 | BF035327.1 | EST_HUMAN | 601488531F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862088 5' |
| 3288 | 18412 | 29427 | 2.5 | 2.0E-36 | BE250287.1 | EST_HUMAN | 601108343F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3342708 5' |
| 5074 | 18202 | 31174 | 10.78 | 2.0E-36 | AW880378.1 | EST_HUMAN | QV0-OT0030-240300-174-hd4 OT0030 Homo sapiens cDNA |
| 5603 | 18798 | 31848 | 2.98 | 2.0E-36 | AF287747.1 | NT | Mus musculus p47-phox gene, complete cds |
| 5870 | 19156 | 32471 | 3.75 | 2.0E-36 | T08756.1 | EST_HUMAN | EST06648 Infant Brain, Bonto Soares Homo sapiens cDNA clone HIBB28 5' and |
| 6706 | 19854 | 33254 | 13.94 | 2.0E-36 | T88629.1 | EST_HUMAN | yc44a07.1 Stragene liver (#837224) Homo sapiens cDNA clone IMAGE:83508 5' |
| 9588 | 22843 | 36212 | 0.94 | 2.0E-36 | BF512794.1 | EST_HUMAN | UIH-BW1-enu-a-11-0-UIST NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:307132 3' |
| 9749 | 22887 | 36258 | 0.74 | 2.0E-36 | 4607848 | NT | Homo sapiens ubiquitin specific protease 13 (isopeptidase T-3) (USP13) mRNA |
| 9749 | 22887 | 36258 | 0.74 | 2.0E-36 | 4607848 | NT | Homo sapiens ubiquitin specific protease 13 (isopeptidase T-3) (USP13) mRNA |
| 808 | 14083 | 27148 | 1.74 | 1.0E-36 | BE409310.1 | EST_HUMAN | 601300938F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3635480 5' |
| 2212 | 15346 | 28474 | 1.71 | 1.0E-36 | BE148523.1 | EST_HUMAN | RC1-HT0217-131199-021-H07 HT0217 Homo sapiens cDNA |
| 2212 | 15346 | 28475 | 1.71 | 1.0E-36 | BE148523.1 | EST_HUMAN | RC1-HT0217-131199-021-H07 HT0217 Homo sapiens cDNA |
| 2275 | 15408 | 28538 | 1.83 | 1.0E-36 | BF073781.1 | EST_HUMAN | 602138493F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4272888 5' |
| 3425 | 16594 | | 3.33 | 1.0E-36 | AF156992.1 | NT | Homo sapiens human endogenous retrovirus W proC6-19 protease (pro) gene, partial cds |
| 5847 | 19037 | 32344 | 0.64 | 1.0E-36 | AL044446.1 | EST_HUMAN | DKFZp434G022_r1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434G022 5' |
| 6020 | 19203 | 32523 | 1.23 | 1.0E-36 | 4827084 | NT | Homo sapiens zinc finger protein 147 (estrogen-responsive finger protein) (ZNF147) mRNA |
| 6312 | 19484 | | 4.27 | 1.0E-36 | AI887714.1 | EST_HUMAN | wb37c12.X1 NCI_CGAP_G08 Homo sapiens cDNA clone IMAGE:2307862 3' similar to contains Alu repetitive element |
| 6519 | 19694 | 33055 | 1.9 | 1.0E-36 | R25012.1 | EST_HUMAN | Yg36g10.r1 Scores Infant brain 1N1B Homo sapiens cDNA clone IMAGE:34629 5' similar to SP:CAHP_HUMAN P35219 CARBONIC ANHYDRASE-RELATED PROTEIN; |
| 6519 | 19694 | 33055 | 1.9 | 1.0E-36 | R25012.1 | EST_HUMAN | Yg36g10.r1 Scores Infant brain 1N1B Homo sapiens cDNA clone IMAGE:34629 5' similar to SP:CAHP_HUMAN P35219 CARBONIC ANHYDRASE-RELATED PROTEIN; |
| 6820 | 19973 | 33381 | 0.72 | 1.0E-36 | AL120542.1 | EST_HUMAN | SP:CAHP_HUMAN P35219 CARBONIC ANHYDRASE-RELATED PROTEIN; |
| 8147 | 21229 | 34747 | 4.06 | 1.0E-36 | AA148034.1 | EST_HUMAN | DKFZp761A229_r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761A229 5' |
| 8147 | 21229 | 34748 | 4.06 | 1.0E-36 | AA148034.1 | EST_HUMAN | z051a12.r1 Stragene endothelial cell 837223 Homo sapiens cDNA clone IMAGE:580398 5' |
| 8243 | 21325 | 34841 | 0.76 | 1.0E-36 | AA420467.1 | EST_HUMAN | z051a12.r1 Stragene endothelial cell 837223 Homo sapiens cDNA clone IMAGE:580398 5' |
| 8243 | 21325 | 34842 | 0.76 | 1.0E-36 | AA420467.1 | EST_HUMAN | nc60e08.r1 NCI_CGAP_P1 Homo sapiens cDNA clone IMAGE:746670 |
| 8373 | 21454 | 34977 | 0.88 | 1.0E-36 | AU141688.1 | EST_HUMAN | nc60e08.r1 NCI_CGAP_P1 Homo sapiens cDNA clone IMAGE:746670 |
| 8373 | 21454 | 34978 | 0.88 | 1.0E-36 | AU141688.1 | EST_HUMAN | AU141688 THYRO1 Homo sapiens cDNA clone THYRO1001033 5' |
| 9229 | 22307 | 35850 | 3.33 | 1.0E-36 | AW103658.1 | EST_HUMAN | AU141688 THYRO1 Homo sapiens cDNA clone THYRO1001033 5' |
| 10320 | 23355 | 36984 | 3.83 | 1.0E-36 | BF368416.1 | EST_HUMAN | xe82b07.x1 NCI_CGAP_Bm35 Homo sapiens cDNA clone IMAGE:2614357 3' |
| 10534 | 23569 | 37176 | 0.64 | 1.0E-36 | AW856868.1 | EST_HUMAN | QY3-NN1023-010600-189-h01 NN1023 Homo sapiens cDNA |
| | | | | | | | RC3-CT0279-040500-017-a10 CT0279 Homo sapiens cDNA |

Page 281 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|-----------------------------|-------------------------------|---|
| 10534 | 23559 | 37177 | 0.64 | 1.0E-36 | AW855933.1 | EST_HUMAN | RC3-CT0279-040500-017-at10 CT0279 Homo sapiens cDNA |
| 11190 | 24259 | 37895 | 2.55 | 1.0E-36 | AW697638.1 | EST_HUMAN | GM3-NN0061-140400-147-H12 NN0061 Homo sapiens cDNA |
| 11682 | 24741 | 38432 | 3.55 | 1.0E-36 | AW504143.1 | EST_HUMAN | UI-HF-BN0-ale-c-03-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3079277 5' |
| 12048 | 25029 | | 10.8 | 1.0E-36 | 11645301 | NT | Homo sapiens PP3227 protein (PP3227), mRNA |
| 12340 | 25245 | | 2.93 | 1.0E-36 | 11418177 | NT | Homo sapiens Ran GTPase activating protein 1 (RANGAP1), mRNA |
| 12835 | 25556 | | 6.78 | 1.0E-36 | AL163213.2 | NT | Homo sapiens chromosome 21 segment HS21C013 |
| 13131 | 25737 | | 2.78 | 1.0E-36 | AF202723.1 | NT | Homo sapiens Sad1 unc-84 domain protein 2 (SUN2) mRNA, partial cds |
| 7539 | 20812 | 34087 | 2.27 | 9.0E-37 | AW009277.1 | EST_HUMAN | ws80507.x1 NCL CGAP_C03 Homo sapiens cDNA clone IMAGE:2504245 3' |
| 7539 | 20812 | 34088 | 2.27 | 9.0E-37 | AW009277.1 | EST_HUMAN | ws80507.x1 NCL CGAP_C03 Homo sapiens cDNA clone IMAGE:2504245 3' |
| 12619 | 25417 | | 3.37 | 9.0E-37 | W22618.1 | EST_HUMAN | 73D4 Human retina cDNA Tsp509I-cleaved sublibrary/Homo sapiens cDNA not directional |
| 3436 | 16604 | 29824 | 1.4 | 8.0E-37 | 4757879 | NT | Homo sapiens chimerin (chimerin) 2 (CHN2) mRNA |
| 5363 | 18566 | | 1.7 | 8.0E-37 | BE688077.1 | EST_HUMAN | CM0-UT0003-050800-503-d09 UT0003 Homo sapiens cDNA |
| 5949 | 19135 | 32448 | 3.48 | 8.0E-37 | BE350127.1 | EST_HUMAN | H09g01.x1 NCL CGAP_K0413 Homo sapiens cDNA clone IMAGE:3146256 3' similar to contains MER29.b3 |
| 5949 | 19135 | 32449 | 3.48 | 8.0E-37 | BE350127.1 | EST_HUMAN | MER29 repetitive element; |
| 5988 | 19183 | 32505 | 7.08 | 8.0E-37 | AW840840.1 | EST_HUMAN | H09g01.x1 NCL CGAP repetitive element; |
| 8068 | 21150 | 34870 | 6.2 | 8.0E-37 | X87344.1 | NT | H.sapiens DNA, DMB, HLA-Z1, IPP2, LMP2, TAP1, LMP7, DOB, DOB2 and RING8, 9, 13 and 14 genes |
| 1313 | 14469 | | 4.92 | 7.0E-37 | AL042800.1 | EST_HUMAN | DKFZp434E0422_r1 434 (synonym: Nies3) Homo sapiens cDNA clone DKFZp434E0422 5' |
| 9228 | 18350 | 31320 | 3.04 | 7.0E-37 | AW868823.1 | EST_HUMAN | EST1380898 IMAGE resequences, MAG1 Homo sapiens cDNA |
| 10994 | 24073 | 37706 | 8.66 | 7.0E-37 | AI817700.1 | EST_HUMAN | wt25b11.x1 NCL CGAP_Bn25 Homo sapiens cDNA clone IMAGE:2413341 3' similar to contains PTR5.12 |
| 11134 | 24206 | 37831 | 1.89 | 7.0E-37 | AI536702.1 | EST_HUMAN | PTR5 repetitive element; |
| 8634 | 21714 | 35251 | 0.59 | 6.0E-37 | AF169689.1 | NT | trn87g03.x1 NCL CGAP_Bn25 Homo sapiens cDNA clone IMAGE:2166140 3' similar to contains L1.b3 L1 repetitive element; |
| 12864 | 25575 | | 2.3 | 6.0E-37 | U78308.1 | NT | Homo sapiens protocadherin alpha 10 alternate isoform (PCDH-alpha10) mRNA, complete cds |
| 12884 | 26641 | | 4.5 | 6.0E-37 | AF202723.1 | NT | Human olfactory receptor cfr17-201-1 (OR17-201-1) gene, olfactory receptor cfr17-32 (OR17-32) gene and olfactory receptor pseudo_cfr17-01 (OR17-01) pseudogenes, complete cds |
| 6218 | 18393 | 32741 | 4.3 | 5.0E-37 | AA307123.1 | EST_HUMAN | Homo sapiens Sad1 unc-84 domain protein 2 (SUN2) mRNA, partial cds |
| 6218 | 18393 | 32742 | 4.3 | 5.0E-37 | AA307123.1 | EST_HUMAN | EST1178035 Colon carcinoma (HCC) cell line Homo sapiens cDNA 5' end |
| 8956 | 22035 | 35576 | 1.03 | 5.0E-37 | AV750211.1 | EST_HUMAN | EST1178035 Colon carcinoma (HCC) cell line Homo sapiens cDNA 5' end |
| 11160 | 24231 | | 4.02 | 5.0E-37 | 7657117 | NT | AV750211 NPC Homo sapiens cDNA clone NPOBGH09 5' |
| 12335 | 26242 | | 3.63 | 5.0E-37 | AF149773.1 | NT | Homo sapiens glycine C-acetyltransferase (2-amino-3-ketobutyrate-CoA ligase) (GCAT), mRNA |
| | | | | | | | Homo sapiens NOD1 protein (NOD1) gene, exons 1, 2, and 3 |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 2495 | 15622 | 28741 | 2.97 | 4.0E-37 | AA702784.1 | EST_HUMAN | z80504.e1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:448016 3' |
| 6416 | 18685 | 32847 | 0.68 | 4.0E-37 | AW784502.1 | EST_HUMAN | RC8-UM0014-210200-021-H05 UM0014 Homo sapiens cDNA |
| 9559 | 22821 | 36182 | 0.66 | 4.0E-37 | AA843806.1 | EST_HUMAN | jak09cd2.s1 Soares_papillary_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1405442 3' |
| 2074 | 18214 | 28332 | 3.42 | 3.0E-37 | AL048958.1 | EST_HUMAN | DKFZp434L2418_r1.434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434L2418 |
| 2074 | 18214 | 28332 | 3.42 | 3.0E-37 | AL048958.1 | EST_HUMAN | DKFZp434L2418_r1.434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434L2418 |
| 2581 | 15708 | | 1.54 | 3.0E-37 | AW981150.1 | EST_HUMAN | EST373222 MAGF Homo sapiens cDNA |
| 3030 | 16206 | | 4.02 | 3.0E-37 | AW981150.1 | EST_HUMAN | EST373222 MAGF Homo sapiens cDNA |
| 5985 | 18170 | 32482 | 0.7 | 3.0E-37 | AL138274.1 | EST_HUMAN | DKFZp547G067_r1.647 (synonym: hibr1) Homo sapiens cDNA clone DKFZp547G067 5' |
| 7728 | 20790 | 34279 | 0.72 | 3.0E-37 | A1748952.1 | EST_HUMAN | Q13537 SIMILAR TO POGO ELEMENT ; |
| 392 | 13629 | 26668 | 0.89 | 2.0E-37 | D89790.1 | NT | Homo sapiens mRNA for AML1, complete cds |
| 392 | 13629 | 26667 | 0.89 | 2.0E-37 | D89790.1 | NT | Homo sapiens mRNA for AML1, complete cds |
| 1105 | 14270 | 27828 | 2.53 | 2.0E-37 | AU131202.1 | EST_HUMAN | AU131202 NT2RP3 Homo sapiens cDNA clone NT2RP3002166 5' |
| 1105 | 14270 | 27829 | 2.53 | 2.0E-37 | AU131202.1 | EST_HUMAN | AU131202 NT2RP3 Homo sapiens cDNA clone NT2RP3002166 5' |
| 2021 | 15162 | 28287 | 1.32 | 2.0E-37 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 3999 | 17156 | 30162 | 6.71 | 2.0E-37 | 4603210 | NT | Homo sapiens cytochrome P450, subfamily XXV1A (steroid 27-hydroxylase, cerebrotendinous xanthomatosis), polypeptide 1 (CYP27A1b) mRNA |
| 4380 | 17603 | 30485 | 0.6 | 2.0E-37 | 4820685 | NT | Homo sapiens DEAD(H) (Asp-Glu-Ala-Asp/His) box polypeptide 1 (DDX1) mRNA |
| 5504 | 18703 | | 0.9 | 2.0E-37 | BF035327.1 | EST_HUMAN | 601458531F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3882088 5' |
| 6876 | 18835 | 33224 | 0.6 | 2.0E-37 | 11800817 | NT | Homo sapiens mouse thiamin pyrophosphokinase homolog (TPK1), mRNA |
| 6795 | 19953 | 33353 | 3.72 | 2.0E-37 | AA349720.1 | EST_HUMAN | EST62931 Fetal heart II Homo sapiens cDNA 5' end |
| 8185 | 21267 | 34760 | 0.47 | 2.0E-37 | BE837764.1 | EST_HUMAN | 601087534F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3453657 5' |
| 8185 | 21267 | 34791 | 0.47 | 2.0E-37 | BE837764.1 | EST_HUMAN | 601087534F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3453657 5' |
| 8227 | 21309 | 34829 | 2.32 | 2.0E-37 | BF204032.1 | EST_HUMAN | 601868157F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4111406 5' |
| 11856 | 24844 | 38541 | 10.07 | 2.0E-37 | AF176013.1 | NT | Homo sapiens J domain containing protein 1 isoform b (JDP1) mRNA, complete cds |
| 12767 | 26770 | | 1.44 | 2.0E-37 | 11417872 | NT | Homo sapiens pascadilla (zabrafish) homolog 1, containing BRCT domain (PES1), mRNA |
| 13184 | 26770 | | 4.19 | 2.0E-37 | 11417872 | NT | Homo sapiens pascadilla (zabrafish) homolog 1, containing BRCT domain (PES1), mRNA |
| 2154 | 15290 | 28417 | 6.95 | 1.0E-37 | AL163281.2 | NT | Homo sapiens chromosome 21 segment HS21C081 |
| 3267 | 16441 | | 1.03 | 1.0E-37 | AW862082.1 | EST_HUMAN | RC3-CT0347-210400-016-h03 CT0347 Homo sapiens cDNA |
| 5055 | 16183 | 31158 | 2.34 | 1.0E-37 | BF371719.1 | EST_HUMAN | QV0-FN0180-280700-318-c10 FN0180 Homo sapiens cDNA |
| 6127 | 19306 | | 0.89 | 1.0E-37 | 7305350 | NT | Mus musculus obgolin (Otog), mRNA |
| 8409 | 21480 | 35019 | 1.12 | 1.0E-37 | BE546032.1 | EST_HUMAN | 601072419F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3453308 5' |
| 8933 | 22012 | 35551 | 3.59 | 1.0E-37 | AA171406.1 | EST_HUMAN | zp21b02.r1 Streptococcus neurophilum (#837231) Homo sapiens cDNA clone IMAGE:610059 5' similar to (contains L1.12 L1 repetitive element ; |

Page 283 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF 3EQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 10937 | 24019 | 37652 | 2.19 | 1.0E-37 | M22878.1 | NT | Human somatic cytochrome c (HCl) processed pseudogene, complete cds |
| 12871 | 25447 | | 1.94 | 1.0E-37 | BE771814.1 | EST_HUMAN | OM3-FT0068-140700-243-c07 FT0068 Homo sapiens cDNA |
| 5888 | 19086 | 32898 | 1.72 | 9.0E-38 | 10048482 | NT | Rattus norvegicus multidomain presynaptic cytomatrix protein Piccolo (LOC566768), mRNA |
| 1249 | 14408 | 27470 | 1.98 | 8.0E-38 | 11436955 | NT | Homo sapiens Grib2-associated binder 2 (KIA0571), mRNA |
| 2567 | 15692 | 28817 | 1.21 | 8.0E-38 | BF346221.1 | EST_HUMAN | 602018401F1 NCL CGAP_Brim7 Homo sapiens cDNA clone IMAGE:4163992 5' |
| 12735 | 14408 | 27470 | 1.37 | 8.0E-38 | 11436955 | NT | Homo sapiens Grib2-associated binder 2 (KIA0571), mRNA |
| 13210 | 26049 | | 1.44 | 8.0E-38 | AB002059.1 | NT | Homo sapiens DNA for Human P2XM, complete cds |
| 2254 | 16387 | 28516 | 1.7 | 7.0E-38 | AW972825.1 | EST_HUMAN | EST384920 IMAGE resequences, MAGL Homo sapiens cDNA |
| 3107 | 16283 | 29299 | 1.98 | 6.0E-38 | BF033033.1 | EST_HUMAN | 601456722F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3868348 5' |
| 5708 | 18909 | 32192 | 0.98 | 6.0E-38 | 11425114 | NT | Homo sapiens zinc finger protein ZNF287 (ZNF287), mRNA |
| 5708 | 18909 | 32193 | 0.98 | 6.0E-38 | 11425114 | NT | Homo sapiens zinc finger protein ZNF287 (ZNF287), mRNA |
| 7482 | 20567 | 34028 | 0.59 | 6.0E-38 | 8923130 | NT | Homo sapiens hypothetical protein FLJ20128 (FLJ20128), mRNA |
| 12188 | 26147 | | 4.27 | 6.0E-38 | 11435947 | NT | Homo sapiens chromosome 12 open reading frame 3 (C12ORF3), mRNA |
| 12704 | 26468 | 32025 | 6.68 | 6.0E-38 | AB002059.1 | NT | Homo sapiens DNA for Human P2XM, complete cds |
| 13160 | 25813 | 31861 | 1.79 | 6.0E-38 | 11418164 | NT | Homo sapiens adenylosuccinate lyase (ADSL), mRNA |
| 745 | 13926 | 28967 | 0.9 | 5.0E-38 | AW971819.1 | EST_HUMAN | EST383908 IMAGE resequences, MAGL Homo sapiens cDNA |
| 2525 | 15650 | 28774 | 4.57 | 5.0E-38 | AJ237740.1 | NT | Homo sapiens RIBIR gene (partial), exon 8 |
| 3798 | 16957 | 29961 | 0.94 | 5.0E-38 | 7549804 | NT | Homo sapiens delodinease, iodotyrosine, type II (DIO2), transcript variant 2, mRNA |
| 3971 | 16957 | 28774 | 0.77 | 5.0E-38 | 7549804 | NT | Homo sapiens delodinease, iodotyrosine, type II (DIO2), transcript variant 2, mRNA |
| 5286 | 15650 | 28774 | 0.98 | 6.0E-38 | AJ237740.1 | NT | Homo sapiens RIBIR gene (partial), exon 8 |
| 7172 | 20305 | 33748 | 1.63 | 5.0E-38 | BE971610.1 | EST_HUMAN | 601450148F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3884074 5' |
| 121 | 13351 | 26360 | 4.28 | 4.0E-38 | Z25466.1 | NT | B.taurus mitochondrial aspartate aminotransferase mRNA, complete CDS |
| 121 | 13351 | 26361 | 4.28 | 4.0E-38 | Z25466.1 | NT | B.taurus mitochondrial aspartate aminotransferase mRNA, complete CDS |
| 1183 | 14346 | 27403 | 1.15 | 3.0E-38 | 11436947 | NT | Homo sapiens chromosome 12 open reading frame 3 (C12ORF3), mRNA |
| 2167 | 15302 | | 4.42 | 3.0E-38 | AF003530.1 | NT | Homo sapiens homeobox protein CDX4 (CDX4) gene, complete cds and flanking repeat regions |
| 3787 | 16948 | | 1.49 | 3.0E-38 | 7649807 | NT | Homo sapiens HIRA interacting protein 4 (dnal-like) (HIRIP4), mRNA |
| 3958 | 17116 | 30119 | 2.46 | 3.0E-38 | P53538 | SWISSPROT | SSU72 PROTEIN |
| 3958 | 17116 | 30120 | 2.46 | 3.0E-38 | P53538 | SWISSPROT | SSU72 PROTEIN |
| 4736 | 17871 | | 0.61 | 3.0E-38 | BE278301.1 | EST_HUMAN | 601157633F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3604272 5' |
| 6893 | 26836 | 33463 | 6.89 | 3.0E-38 | AL163300.2 | NT | Homo sapiens chromosome 21 segment HS21C100 |
| 7393 | 20471 | 33937 | 0.59 | 3.0E-38 | AW302461.1 | EST_HUMAN | xw04d01.x1 NCL CGAP_Brim53 Homo sapiens cDNA clone IMAGE:2827009 3' |
| 7763 | 20822 | 34313 | 6.53 | 3.0E-38 | BF373684.1 | EST_HUMAN | OM3-FT0181-140700-241-c07 FT0181 Homo sapiens cDNA |
| 8851 | 21930 | 36469 | 2.11 | 3.0E-38 | H85494.1 | EST_HUMAN | iy88b04.r1 Soares melanocyte 2NbrM Homo sapiens cDNA clone IMAGE:249775 5' |
| 8851 | 21930 | 36470 | 2.11 | 3.0E-38 | H85494.1 | EST_HUMAN | iy88b04.r1 Soares melanocyte 2NbrM Homo sapiens cDNA clone IMAGE:249775 5' |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 10177 | 23214 | | 1.84 | 3.0E-38 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 11598 | 24651 | | 1.88 | 3.0E-38 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 12980 | 14346 | 27403 | 1.23 | 3.0E-38 | 11435947 | NT | Homo sapiens chromosome 12 open reading frame 3 (C12ORF3), mRNA |
| 61 | 13260 | 28303 | 1.06 | 2.0E-38 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 1411 | 14565 | 27839 | 3.66 | 2.0E-38 | 5902097 | NT | Homo sapiens SMT3 (suppressor of mit two 3, yeast) homolog 2 (SMT3H2), mRNA |
| 1678 | 14830 | 27814 | 13.95 | 2.0E-38 | AA437353.1 | EST_HUMAN | zw30d01.1 Soares ovary tumor NBH07 Homo sapiens cDNA clone IMAGE:770785 5' similar to SW:MA12_RABIT P45701 MANNOSYL-OLIGOSACCHARIDE ALPHA-1,2-MANNOSIDASE ; |
| 1678 | 14830 | 27815 | 13.95 | 2.0E-38 | AA437353.1 | EST_HUMAN | zw30d01.1 Soares ovary tumor NBH07 Homo sapiens cDNA clone IMAGE:770785 5' similar to SW:MA12_RABIT P45701 MANNOSYL-OLIGOSACCHARIDE ALPHA-1,2-MANNOSIDASE ; |
| 3622 | 16786 | | 0.92 | 2.0E-38 | AF070870.1 | NT | Homo sapiens protein phosphatase 2C alpha 2 mRNA, complete cds |
| 4704 | 17839 | 30824 | 18.99 | 2.0E-38 | 4557887 | NT | Homo sapiens keratin 18 (KRT18) mRNA |
| 5282 | 18339 | 31312 | 0.99 | 2.0E-38 | AA437181.1 | EST_HUMAN | zw61409.1 Soares testis NHT Homo sapiens cDNA clone IMAGE:758128 5' similar to TR:G817957 |
| 5836 | 19026 | 32331 | 0.75 | 2.0E-38 | Z26634.2 | NT | Q817957 GLYCINE RECEPTOR SUBUNIT ALPHA 4 ; |
| 5836 | 19026 | 32332 | 0.75 | 2.0E-38 | Z26634.2 | NT | zw61409.1 Soares testis NHT Homo sapiens cDNA clone IMAGE:758128 5' similar to TR:G817957 |
| 7897 | 20949 | 34457 | 1.47 | 2.0E-38 | AV721103.1 | EST_HUMAN | Homo sapiens mRNA for ankyrin B (440 kDa) |
| 8680 | 21760 | | 4.47 | 2.0E-38 | BE165980.1 | EST_HUMAN | AV721103 HTB Homo sapiens cDNA clone HTBARH11 5' |
| 9099 | 22176 | 36719 | 0.49 | 2.0E-38 | F06450.1 | EST_HUMAN | MR3-HT0487-150200-113-g01 HT0487 Homo sapiens cDNA |
| 9165 | 22243 | 35786 | 1.26 | 2.0E-38 | AF069755.1 | NT | HSC18F031 normalized infant brain cDNA Homo sapiens cDNA clone c-18f03 |
| 9422 | 22496 | | 1.36 | 2.0E-38 | BE222256.1 | EST_HUMAN | Homo sapiens orphan G protein-coupled receptor HG20 (HG20) mRNA, complete cds |
| 10665 | 23699 | 37309 | 1.67 | 2.0E-38 | D63479.2 | NT | hu08g02.x1 NCI CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3168130 3' similar to TR:002710 002710 |
| 11781 | 24771 | 38487 | 4.86 | 2.0E-38 | BE12790.1 | EST_HUMAN | GAG POLYPROTEIN. ; |
| 11939 | 24925 | 38828 | 2.86 | 2.0E-38 | AF180501.1 | NT | Homo sapiens mRNA for KIAA0145 protein, partial cds |
| 11939 | 24925 | 38827 | 2.86 | 2.0E-38 | AF180501.1 | NT | QV2-HT0698-080800-293-a05 HT0698 Homo sapiens cDNA |
| 12244 | 25186 | | 6.21 | 2.0E-38 | AV726988.1 | EST_HUMAN | Homo sapiens leucine-rich repeat-containing G protein-coupled receptor 6 (LGR6) mRNA, partial cds |
| 12246 | 25187 | | 1.26 | 2.0E-38 | AB012723.1 | NT | Homo sapiens leucine-rich repeat-containing G protein-coupled receptor 6 (LGR6) mRNA, partial cds |
| 12546 | 25370 | | 3.36 | 2.0E-38 | M55630.1 | NT | Homo sapiens gene for kinesin-like protein, complete cds |
| 12559 | 25381 | 32073 | 4.81 | 2.0E-38 | H55641.1 | EST_HUMAN | Human topoisomerase I pseudogene 2 |
| 12632 | 25425 | | 2.87 | 2.0E-38 | S74905.1 | NT | CHR220580 Chromosome 22 exon Homo sapiens cDNA clone C22_788 5' |
| 13174 | 25762 | | 1.35 | 2.0E-38 | 11418248 | NT | E1 beta-pyruvate dehydrogenase beta (promoter) [human, placenta, Genomic, 1280 nt] |
| | | | | | | | Homo sapiens sulfotransferase-related protein (SULTX3), mRNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 1117 | 14282 | | 1.98 | 1.0E-38 | AA401570.1 | EST_HUMAN | zu62602.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:742639 5' similar to contains element |
| 2055 | 15196 | 28310 | 2.62 | 1.0E-38 | 4885288 | NT | MER19 repetitive element; |
| 2077 | 15217 | 28336 | 1.33 | 1.0E-38 | 7661069 | NT | Homo sapiens guanine nucleotide binding protein-like 1 (GNL1), mRNA |
| 2664 | 15689 | 28815 | 1.69 | 1.0E-38 | AF270831.1 | NT | Homo sapiens KIAA0173 gene product (KIAA0173), mRNA |
| 4271 | 17416 | 30405 | 0.93 | 1.0E-38 | AB037863.1 | NT | Homo sapiens cyclin K (CCNK) gene, exon 7 |
| | | | | | | | Homo sapiens mRNA for KIAA1442 protein, partial cde |
| 4439 | 17578 | 30558 | 0.8 | 1.0E-38 | 4505016 | NT | Homo sapiens low density lipoprotein receptor-related protein 6 (LRP6) mRNA, and translated products |
| 4444 | 17584 | 30563 | 2.15 | 1.0E-38 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 4444 | 17584 | 30564 | 2.15 | 1.0E-38 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 4719 | 17884 | 30837 | 1.08 | 1.0E-38 | 8922543 | NT | Homo sapiens hypothetical protein FLJ10600 (FLJ10600), mRNA |
| 5268 | 18387 | 31355 | 1.89 | 1.0E-38 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 6151 | 19327 | 32872 | 4.69 | 1.0E-38 | 7305360 | NT | Mus musculus otogelin (Otog), mRNA |
| 6151 | 19327 | 32873 | 4.59 | 1.0E-38 | 7305360 | NT | Mus musculus otogelin (Otog), mRNA |
| 7563 | 20635 | 34110 | 2.55 | 1.0E-38 | AB014512.1 | NT | Homo sapiens mRNA for KIAA0612 protein, partial cds |
| 9354 | 22429 | 35987 | 0.58 | 1.0E-38 | 11422250 | NT | Homo sapiens hypothetical protein FLJ10600 (FLJ10600), mRNA |
| 9810 | 22665 | 36236 | 6.31 | 1.0E-38 | BE350127.1 | EST_HUMAN | h08p01.x1 NCI_CGAP_K143 Homo sapiens cDNA clone IMAGE:3146286 3' similar to contains MER28.b3 |
| 12403 | 25877 | | 4.79 | 1.0E-38 | AL163284.2 | NT | MER28 repetitive element; |
| 12116 | 25096 | 38801 | 1.64 | 8.0E-39 | AA112438.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C084 |
| 65 | 13284 | 28308 | 4.93 | 8.0E-39 | 4502312 | NT | znr2707.r1 Stratiene peroxases (8937208) Homo sapiens cDNA clone IMAGE:526885 5' |
| 1425 | 14578 | 27852 | 1.3 | 8.0E-39 | 4768228 | NT | Homo sapiens ATPase, H+ transporting, lysosomal (vacuolar proton pump) 16kD (ATP6C) mRNA |
| 1878 | 15020 | | 1.8 | 8.0E-39 | AI823404.1 | EST_HUMAN | Homo sapiens estrogen receptor-binding fragment-associated gene 9 (EBAG9) mRNA |
| 2160 | 15298 | 28421 | 7.08 | 7.0E-39 | AL163227.2 | NT | wh53f10.x1 NCI_CGAP_K141 Homo sapiens cDNA clone IMAGE:2384491 3' similar to TR:P87890 P87880 |
| 11047 | 24124 | 37758 | 2.4 | 6.0E-39 | BF331829.1 | EST_HUMAN | POL PROTEIN; |
| 13064 | 25697 | | 2.24 | 6.0E-39 | BE670394.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C027 |
| 1032 | 14201 | 27269 | 1.64 | 5.0E-39 | AF003528.1 | NT | QV1-BT0631-040800-357-02 BT0631 Homo sapiens cDNA |
| 3050 | 16228 | 29247 | 9.33 | 6.0E-39 | AI750154.1 | EST_HUMAN | 7c34c03.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3284368 3' similar to WP:R151.6 |
| 12720 | 25479 | | 1.53 | 5.0E-39 | 11420288 | NT | OE00828; |
| | | | | | | | Homo sapiens X-linked antidiabetic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| | | | | | | | at36b04.x1 Barstead colon HPLR87 Homo sapiens cDNA clone IMAGE:2374083 3' similar to TR:Q15408 |
| | | | | | | | Q15408 NEUTRAL PROTEASE LARGE SUBUNIT; contains LTR7.11 LTR7 repetitive element; |
| | | | | | | | Homo sapiens hypothetical protein FLJ10803 (FLJ10803), mRNA |

Page 286 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 564 | 13756 | 26782 | 4.39 | 4.0E-39 | AB015810.1 | NT | Chlorococcus ethiops mRNA for ribosomal protein S4X, complete cds |
| 3663 | 18208 | 29835 | 0.9 | 4.0E-39 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 5950 | 18136 | 32460 | 0.6 | 4.0E-39 | 11422113 | NT | Homo sapiens EBNA-2 co-activator (100KD) (p100), mRNA |
| 5950 | 18136 | 32451 | 0.6 | 4.0E-39 | 11422113 | NT | Homo sapiens EBNA-2 co-activator (100KD) (p100), mRNA |
| 8267 | 21349 | 34864 | 1.02 | 4.0E-39 | AA682949.1 | EST_HUMAN | aa29g04.s1 Stragene echizo brain S11 Homo sapiens cDNA clone IMAGE:1020438 3' similar to contains |
| 9530 | 22595 | 38165 | 0.46 | 4.0E-39 | D84116.1 | NT | ORF.b1 ORF repetitive element: |
| 9530 | 22595 | 38166 | 0.48 | 4.0E-39 | D84116.1 | NT | Homo sapiens DNA for prostacyclin synthase, exon 2 |
| 12744 | 25494 | | 6.36 | 4.0E-39 | 11418177 | NT | Homo sapiens DNA for prostacyclin synthase, exon 2 |
| 12894 | 26598 | | 2.56 | 4.0E-39 | BE830452.1 | EST_HUMAN | Homo sapiens Ran GTPase activating protein 1 (RANGAP1), mRNA |
| 48 | 13267 | 26297 | 11.96 | 3.0E-39 | AA631949.1 | EST_HUMAN | QV0-FN0063-260600-278-c08 FN0063 Homo sapiens cDNA |
| 48 | 13267 | 26298 | 11.96 | 3.0E-39 | AA631949.1 | EST_HUMAN | imic16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1 |
| 48 | 13267 | 26299 | 11.96 | 3.0E-39 | AA631949.1 | EST_HUMAN | imic16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1 |
| 12236 | 25180 | 38348 | 6.59 | 3.0E-39 | AI084557.1 | EST_HUMAN | imic16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1 |
| 12236 | 25180 | 38349 | 6.59 | 3.0E-39 | AI084557.1 | EST_HUMAN | imic16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1 |
| 12284 | 25212 | | 5.72 | 3.0E-39 | H37903.1 | EST_HUMAN | imic16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1 |
| 920 | 14095 | | 7.78 | 2.0E-39 | BE409203.1 | EST_HUMAN | imic16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1 |
| 935 | 14110 | | 11.55 | 2.0E-39 | AI525119.1 | EST_HUMAN | imic16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1 |
| 1057 | 14223 | | 3.9 | 2.0E-39 | AF000573.1 | NT | imic16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1 |
| 1560 | 14713 | | 33.59 | 2.0E-39 | AW372318.1 | EST_HUMAN | imic16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1 |
| 2030 | 15171 | 28278 | 4.48 | 2.0E-39 | AA720574.1 | EST_HUMAN | imic16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1 |
| 2692 | 15812 | 28928 | 1.89 | 2.0E-39 | AL163248.2 | NT | imic16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1 |
| 4523 | 17692 | 30648 | 1.74 | 2.0E-39 | BF370207.1 | EST_HUMAN | imic16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1 |
| 8608 | 18803 | 31868 | 4.45 | 2.0E-39 | AA508880.1 | EST_HUMAN | imic16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1 |
| 7526 | 20598 | 34073 | 2.05 | 2.0E-39 | AA080867.1 | EST_HUMAN | imic16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1 |
| 7702 | 20767 | 34251 | 0.88 | 2.0E-39 | AL163202.2 | NT | imic16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1 |
| 7702 | 20767 | 34252 | 0.88 | 2.0E-39 | AL163202.2 | NT | imic16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1 |
| 8505 | 21586 | 36120 | 0.63 | 2.0E-39 | AF078779.1 | NT | imic16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1 |
| 8526 | 22866 | | 0.76 | 2.0E-39 | AI686660.1 | EST_HUMAN | imic16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1 |
| 11718 | 24796 | 38492 | 2.13 | 2.0E-39 | D86964.1 | NT | imic16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1 |
| 1543 | 14695 | 27774 | 2.83 | 1.0E-39 | AJ006345.1 | NT | imic16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1 |

Page 287 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 1543 | 14695 | 27775 | 2.83 | 1.0E-39 | AJ006345.1 | NT | Homo sapiens KVLQT1 gene |
| 1561 | 14714 | 27781 | 5.98 | 1.0E-39 | 7657020 | NT | Homo sapiens DKFZp434P211 protein (DKFZp434P211), mRNA |
| 1763 | 14912 | 28007 | 1.14 | 1.0E-39 | H65224.1 | EST_HUMAN | CHR220163 Chromosome 22 exon Homo sapiens cDNA clone G22_205 5' |
| 4782 | 17917 | 30903 | 8.32 | 1.0E-39 | AW851885.1 | EST_HUMAN | EST364065 MAGC resequences, MAGB Homo sapiens cDNA |
| 4782 | 17917 | 30904 | 8.32 | 1.0E-39 | AW851885.1 | EST_HUMAN | EST384085 MAGC resequences, MAGB Homo sapiens cDNA |
| 4824 | 17957 | 30943 | 8.13 | 1.0E-39 | 7657020 | NT | Homo sapiens DKFZp434P211 protein (DKFZp434P211), mRNA |
| 5474 | 18673 | 31686 | 0.82 | 1.0E-39 | 11417342 | NT | Homo sapiens sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 5A (SEMA5A), mRNA |
| 5474 | 18673 | 31687 | 0.82 | 1.0E-39 | 11417342 | NT | Homo sapiens sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 5A (SEMA5A), mRNA |
| 5747 | 18939 | 32239 | 1.2 | 1.0E-39 | T80876.1 | EST_HUMAN | Alu repetitive element; contains LTR1 repetitive element |
| 5781 | 18973 | 32278 | 4.65 | 1.0E-39 | AJ278170.1 | NT | Mus musculus mRNA for neuronal interacting factor X 1 (NIX1) (Nix1 gene) |
| 5781 | 18973 | 32279 | 4.65 | 1.0E-39 | AJ278170.1 | NT | Mus musculus mRNA for neuronal interacting factor X 1 (NIX1) (Nix1 gene) |
| 6965 | 20193 | 34069 | 1.95 | 1.0E-39 | 11438736 | NT | Homo sapiens tubby like protein 3 (TULP3), mRNA |
| 7521 | 20694 | 34069 | 2.15 | 1.0E-39 | D78132.1 | NT | Homo sapiens mRNA for ras-related GTP-binding protein, complete cds |
| 8782 | 21841 | 35382 | 1.04 | 1.0E-39 | O46630 | SWISSPROT | RIBONUCLEASE K3 PRECURSOR (RNASE K3) |
| 11165 | 24236 | 37867 | 1.4 | 1.0E-39 | 4759051 | NT | Homo sapiens ribosomal protein S6 kinase, 60kD, polypeptide 5 (RPS6KA5) mRNA |
| 669 | 13761 | 28785 | 2 | 9.0E-40 | 5803210 | NT | Homo sapiens UDP-glucose pyrophosphorylase 2 (UGP2), mRNA |
| 1263 | 14420 | 27494 | 16.02 | 9.0E-40 | 4756145 | NT | Homo sapiens AE-binding protein 1 (AEBP1) mRNA |
| 1263 | 14420 | 27485 | 16.02 | 9.0E-40 | 4755145 | NT | Homo sapiens AE-binding protein 1 (AEBP1) mRNA |
| 1480 | 14693 | 27718 | 15.75 | 9.0E-40 | 4507512 | NT | Homo sapiens tissue inhibitor of metalloproteinase 3 (Sorsby fundus dystrophy, pseudoinflammatory) (TIMP3) mRNA |
| 3885 | 17044 | 30043 | 1.18 | 9.0E-40 | 4503784 | NT | Homo sapiens fragile X mental retardation 1 (FMR1) mRNA |
| 4081 | 18467 | 30242 | 3.89 | 9.0E-40 | AB033070.1 | NT | Homo sapiens mRNA for KIAA1244 protein, partial cds |
| 4466 | 17606 | 30584 | 5.63 | 9.0E-40 | 4507848 | NT | Homo sapiens ubiquitin specific protease 13 (isopeptidase T-3) (USP13) mRNA |
| 3106 | 16282 | 28298 | 1.04 | 8.0E-40 | AA078165.1 | EST_HUMAN | 7H15A04 Chromosome 7 HLA cDNA Library Homo sapiens cDNA clone 7H15A04 |
| 4033 | 17169 | | 3.43 | 8.0E-40 | BE369541.1 | EST_HUMAN | 601288958F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3619166 5' |
| 7694 | 20946 | 34452 | 2.21 | 7.0E-40 | U60325.1 | NT | Human DNA polymerase gamma mRNA, nuclear gene encoding mitochondrial protein, complete cds |
| 7894 | 20946 | 34453 | 2.21 | 7.0E-40 | U60325.1 | NT | Human DNA polymerase gamma mRNA, nuclear gene encoding mitochondrial protein, complete cds |
| 11136 | 24208 | 37894 | 2.63 | 7.0E-40 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |

Page 288 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|-----------------------------|-------------------------------|---|
| 2788 | 15904 | 28011 | 9.91 | 6.0E-40 | AA361275.1 | EST_HUMAN | EST70527 T-cell lymphoma Homo sapiens cDNA 5' end similar to zinc finger protein family |
| 2788 | 15904 | 28012 | 9.91 | 6.0E-40 | AA361275.1 | EST_HUMAN | EST70527 T-cell lymphoma Homo sapiens cDNA 5' end similar to zinc finger protein family |
| 6080 | 18242 | | 1.85 | 6.0E-40 | BE504786.1 | EST_HUMAN | h240g01.x1 NCI_CGAP_CG8 Homo sapiens cDNA clone IMAGE:3210480 3' |
| 6275 | 19449 | | 1.38 | 6.0E-40 | 7681989 | NT | Homo sapiens KIAA0211 gene product (KIAA0211), mRNA |
| 7075 | 20128 | 33544 | 3.04 | 6.0E-40 | 11439783 | NT | Homo sapiens fatty acid desaturase 1 (FADS1), mRNA |
| 7075 | 20128 | 33546 | 3.04 | 6.0E-40 | 11439783 | NT | Homo sapiens fatty acid desaturase 1 (FADS1), mRNA |
| 10182 | 23219 | 36811 | 6.09 | 6.0E-40 | AV653028.1 | EST_HUMAN | AV653028 GLC Homo sapiens cDNA clone GLCDGF04 3' |
| 10182 | 23219 | 36812 | 6.09 | 6.0E-40 | AV653028.1 | EST_HUMAN | AV653028 GLC Homo sapiens cDNA clone GLCDGF04 3' |
| 2670 | 15791 | 28907 | 2.75 | 5.0E-40 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 1925 | 15088 | 28173 | 3.81 | 4.0E-40 | AI686005.1 | EST_HUMAN | h81b01.x1 NCI_CGAP_P128 Homo sapiens cDNA clone IMAGE:2248873 3' similar to TR:O73505 O73505 POL PROTEIN 1; Homo sapiens X-linked ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 2175 | 15310 | | 6.81 | 4.0E-40 | AF003628.1 | NT | Homo sapiens KIAA0433 protein (KIAA0433), mRNA |
| 4508 | 17847 | 30635 | 7.2 | 4.0E-40 | 7682117 | NT | AU127831 NT2RP2 Homo sapiens cDNA clone NT2RP2002172 5' |
| 8070 | 21152 | 34872 | 0.84 | 4.0E-40 | AU127831.1 | EST_HUMAN | m34e10.t1 NCI_CGAP_B14 Homo sapiens cDNA clone IMAGE:1222122 |
| 8181 | 21263 | 34785 | 6.98 | 4.0E-40 | AA742809.1 | EST_HUMAN | PMO-BN0167-070500-002-112 BN0167 Homo sapiens cDNA |
| 9255 | 22332 | 35881 | 5.84 | 4.0E-40 | BE009416.1 | EST_HUMAN | PMO-BN0167-070500-002-112 BN0167 Homo sapiens cDNA |
| 9255 | 22332 | 35882 | 5.84 | 4.0E-40 | BE009416.1 | EST_HUMAN | RC1-CN0017-120200-012-e04 CN0017 Homo sapiens cDNA |
| 10655 | 24036 | 37671 | 1.95 | 4.0E-40 | AW841585.1 | EST_HUMAN | wh1207.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2380649 3' |
| 4250 | 17396 | 30385 | 0.9 | 3.0E-40 | AI925949.1 | EST_HUMAN | z16h08.s1 Soares_fetal_heart_NBPH19W Homo sapiens cDNA clone IMAGE:377163 3' |
| 4893 | 18122 | | 0.83 | 3.0E-40 | AA055118.1 | EST_HUMAN | Homo sapiens ribosomal protein S8 kinase, 70kD, polypeptide 1 (RPS8KB1), mRNA |
| 6592 | 19752 | 33137 | 0.69 | 3.0E-40 | 4506736 | NT | Homo sapiens ribosomal protein S8 kinase, 70kD, polypeptide 1 (RPS8KB1), mRNA |
| 8777 | 19932 | 33328 | 7.06 | 3.0E-40 | 11417342 | NT | (TM) and short cytoplasmic domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain |
| 8575 | 21656 | 35197 | 3.86 | 3.0E-40 | 6464167 | NT | Homo sapiens HIV associated factor (XAP-4), mRNA |
| 9169 | 22247 | 35790 | 1.27 | 3.0E-40 | AF078779.1 | NT | Rattus norvegicus putative four repeat ion channel mRNA, complete cds |
| 9412 | 22486 | 36050 | 1.6 | 3.0E-40 | AF078779.1 | NT | Rattus norvegicus putative four repeat ion channel mRNA, complete cds |
| 10899 | 23983 | 37615 | 1.49 | 3.0E-40 | D86864.1 | NT | Human mRNA for KIAA0208 gene, partial cds |
| 11544 | 24600 | 38270 | 8.12 | 3.0E-40 | 6008813 | NT | Homo sapiens serine threonine protein kinase (NDR), mRNA |
| 335 | 13548 | | 3.91 | 2.0E-40 | AI223036.1 | EST_HUMAN | q52h08.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1838847 3' |
| 817 | 13996 | | 5.58 | 2.0E-40 | AW303868.1 | EST_HUMAN | x24e10.x1 NCI_CGAP_U14 Homo sapiens cDNA clone IMAGE:2761088 3' similar to SW:RS5_MOUSE P97461 40S RIBOSOMAL PROTEIN S6.1 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 1872 | 15016 | | 2.33 | 2.0E-40 | AV731601.1 | EST_HUMAN | AV731601 HTF Homo sapiens cDNA clone HTFAZE05 5' |
| 1888 | 15130 | 28233 | 2.8 | 2.0E-40 | 4506188 | NT | Homo sapiens proteasome (prosome, macropain) subunit, alpha type, 7 (PSMA7) mRNA, and translated products |
| 1888 | 15130 | 28234 | 2.8 | 2.0E-40 | 4506188 | NT | Homo sapiens proteasome (prosome, macropain) subunit, alpha type, 7 (PSMA7) mRNA, and translated products |
| 2133 | 15289 | 28388 | 1.39 | 2.0E-40 | AI988562.1 | EST_HUMAN | wf80a11.x1 NCL CGAP_GC8 Homo sapiens cDNA clone IMAGE:2514716 3' similar to TR:Q91929 Q91929 |
| 2238 | 15371 | 28500 | 2.21 | 2.0E-40 | 5453592 | NT | ZINC FINGER PROTEIN.1 |
| 2754 | 15871 | 28378 | 1.66 | 2.0E-40 | BE27692.1 | EST_HUMAN | Homo sapiens adenylyl cyclase-associated protein 2 (CAP2) mRNA |
| 3196 | 16371 | 28378 | 5.27 | 2.0E-40 | 5453592 | NT | Homo sapiens adenylyl cyclase-associated protein 2 (CAP2) mRNA |
| 5021 | 18150 | 31128 | 1.43 | 2.0E-40 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 5021 | 18150 | 31129 | 1.43 | 2.0E-40 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 808 | 14081 | | 1.2 | 1.0E-40 | AA225980.1 | EST_HUMAN | nc09a09.s1 NCL CGAP_P11 Homo sapiens cDNA clone IMAGE:1007608 |
| 2866 | 15806 | 28922 | 1.82 | 1.0E-40 | BF038881.1 | EST_HUMAN | 601480375F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3863803 5' |
| 2760 | 15897 | | 3.88 | 1.0E-40 | BE018348.1 | EST_HUMAN | b679a10.y1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3048570 5' similar to TR:Q82168 Q82168 |
| 3370 | 16542 | | 2.14 | 1.0E-40 | 4507142 | NT | SYNTAXIN 17.1 |
| 4733 | 17888 | 30851 | 3.69 | 1.0E-40 | 4508012 | NT | Homo sapiens sorting nexin 3 (SNX3) mRNA |
| 6385 | 19594 | 32912 | 0.88 | 1.0E-40 | W92703.1 | EST_HUMAN | Homo sapiens zinc finger protein 200 (ZNF200) mRNA, and translated products |
| 6385 | 19594 | 32913 | 0.88 | 1.0E-40 | W92703.1 | EST_HUMAN | zh79f11.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:418317 3' |
| 7236 | 20320 | 33763 | 1.83 | 1.0E-40 | AA373201.1 | EST_HUMAN | zh79f11.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:418317 3' |
| 7236 | 20320 | 33764 | 1.83 | 1.0E-40 | AA373201.1 | EST_HUMAN | tl42f04.s1 NCL CGAP_AA1 Homo sapiens cDNA clone IMAGE:995107 3' |
| 7381 | 20459 | 33922 | 0.82 | 1.0E-40 | P26808 | SWISSPROT | tl42f04.s1 NCL CGAP_AA1 Homo sapiens cDNA clone IMAGE:995107 3' |
| 11157 | 24228 | 37858 | 6.41 | 1.0E-40 | AU146345.1 | EST_HUMAN | POL POLYPROTEIN [CONTAINS: PROTEASE; REVERSE TRANSCRIPTASE; RIBONUCLEASE H] |
| 11993 | 24978 | 38683 | 1.49 | 1.0E-40 | AA614255.1 | EST_HUMAN | AU149345 NT2RM4 Homo sapiens cDNA clone NT2RM4002122 3' |
| 11993 | 24978 | 38684 | 1.49 | 1.0E-40 | AA614255.1 | EST_HUMAN | np08h03.s1 NCL CGAP_P3 Homo sapiens cDNA clone IMAGE:1116881 similar to TR:G1136406 |
| 12079 | 25069 | | 1.88 | 1.0E-40 | AL163246.2 | NT | G1136406 KIAA0173 PROTEIN.1 |
| 12687 | 28032 | | 6.04 | 1.0E-40 | BF334112.1 | EST_HUMAN | G1136406 KIAA0173 PROTEIN.1 |
| 3006 | 17065 | 30064 | 0.58 | 9.0E-41 | W01698.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C048 |
| 8108 | 21188 | 34708 | 1.6 | 8.0E-41 | AL163203.2 | NT | MR2-CT0222-211099-002-e10 GT0222 Homo sapiens cDNA |
| 851 | 16024 | 27089 | 2.62 | 7.0E-41 | AI934384.1 | EST_HUMAN | zh36a02.l1 Soares_fetal_liver_spleen_1NFLS Homo sapiens cDNA clone IMAGE:284602 5' |
| 851 | 16024 | 27090 | 2.52 | 7.0E-41 | AI934384.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C003 |
| | | | | | | | wp04h04.x1 NCL CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2463895 3' |
| | | | | | | | wp04h04.x1 NCL CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2463895 3' |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 6379 | 18581 | 31450 | 0.9 | 7.0E-41 | 11545770 | NT | Homo sapiens hypothetical protein FLJ13188 (FLJ13188), mRNA |
| 6132 | 19311 | 32651 | 2.71 | 7.0E-41 | 11419208 | NT | Homo sapiens a disintegrin and metalloproteinase domain 22 (ADAM22), mRNA |
| 6483 | 18650 | 33012 | 1.04 | 7.0E-41 | 11433010 | NT | Homo sapiens IQ motif containing GTPase activating protein 1 (IQGAP1), mRNA |
| 7133 | 18559 | 31473 | 0.96 | 7.0E-41 | U72335.1 | NT | Human platelet activating factor acetylhydrolase, brain isoform, 45 kDa subunit (LIS1) gene, exons 3 and 4 |
| 11718 | 24758 | 38453 | 2.06 | 7.0E-41 | 4758445 | NT | Homo sapiens guanine nucleotide binding protein 10 (GNG10) mRNA |
| 11931 | 24917 | 38620 | 1.41 | 7.0E-41 | AF223301.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 13182 | 26028 | | 8.58 | 7.0E-41 | 11417872 | NT | Homo sapiens p53 (p53) (zebrafish) homolog 1, containing BRCT domain (PES1), mRNA |
| 291 | 13508 | 26543 | 1.13 | 8.0E-41 | AB037183.1 | NT | Homo sapiens DSCR5b mRNA, complete cds |
| 2179 | 15314 | 28443 | 3.09 | 8.0E-41 | 7657042 | NT | Homo sapiens Down syndrome candidate region 1 (DSOR1), mRNA |
| 8168 | 21240 | 34760 | 1.31 | 8.0E-41 | BF1513783.1 | EST_HUMAN | U1-H-BW1-amp-b-03-0-U1.s1 NCJ CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3070421 3' |
| 13156 | 25952 | | 1.25 | 8.0E-41 | AW873637.1 | EST_HUMAN | h04108.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:3042183 3' similar to centinzo |
| 1845 | 14891 | 28092 | 1.37 | 5.0E-41 | T62628.1 | EST_HUMAN | MER32.b3 MER32 repetitive element |
| 4223 | 17371 | | 1.17 | 5.0E-41 | 4885638 | NT | yc03e10.s1 Strategene lung (H937210) Homo sapiens cDNA clone IMAGE:78628 3' |
| 6878 | 19837 | | 2.34 | 5.0E-41 | BE067042.1 | EST_HUMAN | Homo sapiens target of myb1 (chicken) homolog (TOM1), mRNA |
| 402 | 13659 | | 1.69 | 4.0E-41 | BE158318.1 | EST_HUMAN | PM4-BT0341-251199-002-F11 BT0341 Homo sapiens cDNA |
| 1122 | 14287 | 27342 | 2.37 | 4.0E-41 | AU119344.1 | EST_HUMAN | QY0-HT0387-150200-114-q09 HT0387 Homo sapiens cDNA |
| 1442 | 14595 | 27670 | 14.6 | 4.0E-41 | AI027117.1 | EST_HUMAN | AU119344 HEMBA1 Homo sapiens cDNA clone HEMBA1005683 5' |
| 1442 | 14595 | 27671 | 14.6 | 4.0E-41 | AI027117.1 | EST_HUMAN | qw46c06.c1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1649784 3' similar to |
| 1484 | 14607 | 27687 | 3.34 | 4.0E-41 | AB008681.1 | NT | TR:000597 000597 CYTOCHROME C-LIKE POLYPEPTIDE ; contains LTR5.b1 LTR5 repetitive element ; |
| 1665 | 14817 | 27800 | 7.72 | 4.0E-41 | AI500408.1 | EST_HUMAN | qw45e06.s1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1649784 3' similar to |
| 2953 | 16130 | 28144 | 5.02 | 4.0E-41 | AJ228041.1 | NT | TR:000597 000597 CYTOCHROME C-LIKE POLYPEPTIDE ; contains LTR5.b1 LTR5 repetitive element ; |
| 2953 | 16130 | 28145 | 5.02 | 4.0E-41 | AJ228041.1 | NT | Homo sapiens gene for activin receptor type IIB, complete cds |
| 4282 | 17407 | 30383 | 2.13 | 4.0E-41 | X82685.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3 |
| 6638 | 19797 | | 1.8 | 4.0E-41 | AV758295.1 | EST_HUMAN | H. sapiens DNase I hypersensitive site (HSS-3) enhancer element |
| 9895 | 22835 | 36519 | 5.06 | 4.0E-41 | BF304683.1 | EST_HUMAN | AV768295 BM Homo sapiens cDNA clone BMBFHC06 5' |
| 11959 | 24984 | | 7.38 | 4.0E-41 | AV710480.1 | EST_HUMAN | 601888096F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4122118 5' |
| | | | | | | | AV710480 Cu Homo sapiens cDNA clone CuAAC07 5' |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 12900 | 25917 | | 1.3 | 4.0E-41 | AV708431.1 | EST_HUMAN | AV708431 ADC Homo sapiens cDNA clone ADCARE02 5' |
| 13110 | 25725 | 31942 | 1.61 | 4.0E-41 | BE887118.1 | EST_HUMAN | 601608315F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3910039 5' |
| 870 | 14143 | 27203 | 1.8 | 3.0E-41 | AB030176.1 | NT | Homo sapiens PAD-H19 mRNA for peptidylarginine deiminase type II, complete cds |
| 4455 | 17595 | 30575 | 4.03 | 3.0E-41 | AB026698.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 5609 | 18804 | 31869 | 11.76 | 3.0E-41 | X87689.1 | NT | H. sapiens mRNA for putative p64 CLCP protein |
| 6511 | 19676 | 33046 | 1.23 | 3.0E-41 | AB037808.1 | NT | Homo sapiens mRNA for KIAA1387 protein, partial cds |
| 7987 | 21017 | 34529 | 0.71 | 3.0E-41 | R54765.1 | EST_HUMAN | y75c08.r1 Soares breast 2NbhBst1 Homo sapiens cDNA clone IMAGE:184676 5' |
| 12119 | 25099 | 38804 | 1.38 | 3.0E-41 | AW994941.1 | EST_HUMAN | QV0-BN0040-170300-160-h08 BN0040 Homo sapiens cDNA |
| 12119 | 25099 | 38805 | 1.36 | 3.0E-41 | AW994941.1 | EST_HUMAN | QV0-BN0040-170300-160-h08 BN0040 Homo sapiens cDNA |
| 12196 | 25153 | | 1.98 | 3.0E-41 | AA609768.1 | EST_HUMAN | a17110.s1 Soares testis NHT Homo sapiens cDNA clone IMAGE:1031947 3' |
| 12783 | 25525 | | 1.43 | 3.0E-41 | BF125922.1 | EST_HUMAN | 601762940F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:4028081 5' |
| 1871 | 14744 | 27827 | 31.25 | 2.0E-41 | U43701.1 | NT | Human ribosomal protein L23a mRNA, complete cds |
| 2013 | 15163 | 28258 | 2.17 | 2.0E-41 | AA331940.1 | EST_HUMAN | EST36818 Embryo, 8 week 1 Homo sapiens cDNA 5' end |
| 2293 | 15425 | 28559 | 1.26 | 2.0E-41 | D89982.1 | NT | Human mRNA for KIAA0207 gene, complete cds |
| 2341 | 16472 | 28805 | 5.52 | 2.0E-41 | X89681.1 | NT | G gorilla DNA for ZNF80 gene homolog |
| 2889 | 14744 | 27827 | 11.99 | 2.0E-41 | U43701.1 | NT | Human ribosomal protein L23a mRNA, complete cds |
| 3406 | 16576 | 29591 | 0.89 | 2.0E-41 | AA448549.1 | EST_HUMAN | 2x08b04.r1 Soares fetal_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:785839 5' |
| 3941 | 17100 | 30097 | 0.89 | 2.0E-41 | 5032106 | NT | Homo sapiens son of sevenless (Drosophila) homolog 1 (SOS1) mRNA |
| 4744 | 17879 | 30862 | 1.23 | 2.0E-41 | AL163267.2 | NT | Homo sapiens chromosome 21 segment HS21C067 |
| 4744 | 17879 | 30863 | 1.23 | 2.0E-41 | AL163267.2 | NT | Homo sapiens chromosome 21 segment HS21C067 |
| 5656 | 18850 | 32132 | 0.6 | 2.0E-41 | AA584575.1 | EST_HUMAN | no12c07.s1 NCI CGAP_Pho1 Homo sapiens cDNA clone IMAGE:1100460 3' similar to gb:52851_rnet |
| 6763 | 19919 | 33314 | 0.98 | 2.0E-41 | 4504778 | NT | PEPTIDYL-PROLYL CIS-TRANS ISOMERASE A (HUMAN); |
| 7850 | 20905 | 34409 | 9.27 | 2.0E-41 | AF038404.1 | NT | Homo sapiens integrin, beta 8 (ITGB8) mRNA |
| 8259 | 21341 | 34858 | 1.36 | 2.0E-41 | M96944.1 | NT | Homo sapiens homolog of Nedd5 (hNedd5) mRNA, complete cds |
| 8259 | 21341 | 34859 | 1.36 | 2.0E-41 | M96944.1 | NT | Human B-cell specific transcription factor (BSAP) mRNA, complete cds |
| 8288 | 21370 | 34891 | 1.42 | 2.0E-41 | AA328288.1 | EST_HUMAN | Human B-cell specific transcription factor (BSAP) mRNA, complete cds |
| 9176 | 22263 | 35798 | 1.65 | 2.0E-41 | P52742 | SWISSPROT | EST31723 Embryo, 12 week 1 Homo sapiens cDNA 5' end |
| 9617 | 22672 | 36241 | 0.68 | 2.0E-41 | 11417118 | NT | ZINC FINGER PROTEIN 135 |
| 9617 | 22672 | 36241 | 0.68 | 2.0E-41 | 11417118 | NT | Homo sapiens KIAA0433 protein (KIAA0433), mRNA |
| 9617 | 22672 | 36242 | 0.56 | 2.0E-41 | 11417118 | NT | Homo sapiens KIAA0433 protein (KIAA0433), mRNA |
| 11775 | 24077 | 36242 | 2.87 | 2.0E-41 | AA372637.1 | EST_HUMAN | EST84555 Colon adenocarcinoma IV Homo sapiens cDNA 5' end |
| 13148 | 25747 | | 1.2 | 2.0E-41 | 11420516 | NT | Homo sapiens nuclear factor of activated T-cells, cytoplasmic 2 (NFATC2), mRNA |
| 3276 | 19450 | 29470 | 1.05 | 1.0E-41 | BE869735.1 | EST_HUMAN | 601445647F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3849803 5' |

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 3278 | 18450 | 28471 | 1.05 | 1.0E-41 | BE669735.1 | EST_HUMAN | 601445847F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3849803 5' |
| 4689 | 17824 | 30811 | 9.46 | 1.0E-41 | 6678468 | NT | Mus musculus tubulin alpha 6 (Tuba6), mRNA |
| 9618 | 22873 | 36243 | 1.57 | 1.0E-41 | AL217868.1 | EST_HUMAN | q75c10.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1755858 3' |
| 12334 | 25241 | | 1.87 | 1.0E-41 | 11528291 | NT | Homo sapiens hypothetical protein FLJ20454 (FLJ20454), mRNA |
| 8717 | 21797 | | 1.19 | 9.0E-42 | BE179191.1 | EST_HUMAN | RG0-HT0613-210300-032-g01 HT0613 Homo sapiens cDNA |
| 9375 | 22450 | 36011 | 2.81 | 9.0E-42 | 11560151 | NT | Homo sapiens hypothetical C2H2 zinc finger protein FLJ22504 (FLJ22504), mRNA |
| 9375 | 22450 | 36012 | 2.81 | 9.0E-42 | 11560151 | NT | Homo sapiens hypothetical C2H2 zinc finger protein FLJ22504 (FLJ22504), mRNA |
| 475 | 13670 | 28702 | 5.34 | 8.0E-42 | AF003530.1 | NT | Homo sapiens homeobox protein CDX4 (CDX4) gene, complete cds and flanking repeat regions |
| | | | | | | | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 2178 | 16311 | 28439 | 8.93 | 8.0E-42 | AB028888.1 | NT | Human sapiens cDNA clone IMAGE:943588 similar to TR:G434304 G434304 |
| 12376 | 26036 | | 30.09 | 8.0E-42 | AA493896.1 | EST_HUMAN | 387BP EXPRESSED SEQUENCE TAG MRNA ; |
| 12396 | 25904 | | 2.91 | 8.0E-42 | AW080662.1 | EST_HUMAN | xc97a04.x1 NCI_CGAP_Bm35 Homo sapiens cDNA clone IMAGE:2692174 3' similar to contains OFR.12 |
| 855 | 14128 | | 2.23 | 7.0E-42 | AL163285.2 | NT | OFI repetitive element ; |
| 8663 | 21746 | | 0.5 | 7.0E-42 | R10983.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C085 |
| 9445 | 22561 | 36124 | 1.32 | 7.0E-42 | AI204388.1 | EST_HUMAN | y38g04.1 Soares fetal liver spleen 1NLS Homo sapiens cDNA clone IMAGE:128174 5' |
| 1803 | 16046 | 28165 | 3.24 | 6.0E-42 | AF012872.1 | NT | qf58g12.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1754278 3' |
| 1903 | 15046 | 28166 | 3.24 | 6.0E-42 | AF012872.1 | NT | Homo sapiens phosphatidylinositol 4-kinase 230 (pi4K230) mRNA, complete cds |
| | | | | | | | Homo sapiens phosphatidylinositol 4-kinase 230 (pi4K230) mRNA, complete cds |
| 2363 | 15494 | | 3.5 | 6.0E-42 | AW238659.1 | EST_HUMAN | xc29f08.x1 NCI_CGAP_HIN10 Homo sapiens cDNA clone IMAGE:2741789 3' similar to contains L1.1 L1 |
| 5584 | 18779 | 31824 | 1.65 | 6.0E-42 | AB028980.1 | NT | repetitive element ; |
| 5834 | 18779 | 31824 | 1.5 | 6.0E-42 | AB028980.1 | NT | Homo sapiens mRNA for KIAA1067 protein, partial cds |
| 138 | 13364 | | 6.34 | 5.0E-42 | AJ271735.1 | NT | Homo sapiens mRNA for KIAA1067 protein, partial cds |
| 461 | 13847 | 26883 | 1.56 | 5.0E-42 | BE217913.1 | EST_HUMAN | Homo sapiens Xq pseudautosomal region, segment 1/2 |
| 495 | 13694 | | 3.05 | 6.0E-42 | 57300398 | NT | hvd31e11.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3175052 3' |
| 500 | 13695 | | 1.14 | 5.0E-42 | 87300398 | NT | Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA |
| | | | | | | | Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA |
| 6826 | 19978 | 33385 | 0.94 | 5.0E-42 | 11433063 | NT | Homo sapiens ubiquitin protein ligase E3A (human papilloma virus E6-associated protein, Angelman syndrome) (UBE3A), mRNA |
| 6826 | 19978 | 33386 | 0.94 | 5.0E-42 | 11433063 | NT | Homo sapiens ubiquitin protein ligase E3A (human papilloma virus E6-associated protein, Angelman syndrome) (UBE3A), mRNA |
| 6941 | 20264 | 33691 | 2.87 | 5.0E-42 | 11417857 | NT | Homo sapiens myotubularin related protein 3 (MTMR3), mRNA |
| 7351 | 20430 | 33892 | 1.55 | 5.0E-42 | AF071569.1 | NT | Homo sapiens multifunctional calcium/calmodulin-dependent protein kinase II delta2 isoform mRNA, complete cds |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 8978 | 22057 | 35599 | 2.88 | 5.0E-42 | AB037715.1 | NT | Homo sapiens mRNA for KIAA1284 protein, partial cds |
| 10832 | 23866 | 37487 | 0.55 | 5.0E-42 | 11431188 | NT | Homo sapiens 3-hydroxyanthranilate 3,4-dioxygenase (HAAO), mRNA |
| 10832 | 23866 | 37488 | 0.55 | 5.0E-42 | 11431188 | NT | Homo sapiens 3-hydroxyanthranilate 3,4-dioxygenase (HAAO), mRNA |
| 11248 | 24315 | 37855 | 1.77 | 5.0E-42 | 8923182 | NT | Homo sapiens hypothetical protein FLJ20163 (FLJ20163), mRNA |
| 772 | 13853 | 27002 | 5.6 | 4.0E-42 | AF055086.1 | NT | Homo sapiens MHC class I region |
| 772 | 13853 | 27003 | 5.6 | 4.0E-42 | AF055086.1 | NT | Homo sapiens MHC class I region |
| 1091 | 14256 | 27312 | 1.82 | 4.0E-42 | AF189011.1 | NT | Homo sapiens ribonuclease III (RN3) mRNA, complete cds |
| 4311 | 17454 | 30442 | 1.39 | 4.0E-42 | X59417.1 | NT | H. sapiens PROS-27 mRNA |
| 4343 | 17466 | 30489 | 1.1 | 4.0E-42 | AF246219.1 | NT | Homo sapiens SNARE protein kinase SNAK mRNA, complete cds |
| 4364 | 17507 | 30488 | 4.87 | 4.0E-42 | 4506498 | NT | Homo sapiens regulatory factor X, 4 (influences HLA class II expression) (RFX4) mRNA |
| 4706 | 17841 | 30825 | 17.04 | 4.0E-42 | 4608008 | NT | Homo sapiens zinc finger protein 177 (ZNF177) mRNA |
| 5285 | 18404 | 31372 | 0.93 | 4.0E-42 | 7861635 | NT | Homo sapiens DKFZP684O2082 protein (DKFZP684O2082), mRNA |
| 10701 | 23734 | 37339 | 0.57 | 4.0E-42 | AW371201.1 | EST_HUMAN | CMB-BT0282-171298-127-603 BT0282 Homo sapiens cDNA |
| 10884 | 23868 | 37597 | 2.32 | 4.0E-42 | AW818630.1 | EST_HUMAN | RC1-ST0278-040400-018-h11 ST0278 Homo sapiens cDNA |
| 10884 | 23868 | 37598 | 2.32 | 4.0E-42 | AW818630.1 | EST_HUMAN | RC1-ST0278-040400-018-h11 ST0278 Homo sapiens cDNA |
| 11240 | 24309 | 37946 | 1.43 | 4.0E-42 | A143225.1 | EST_HUMAN | BT1402.X1 NCL CGAP_Fan1 Homo sapiens cDNA clone IMAGE:2130147 3' |
| 11698 | 24695 | 38387 | 1.69 | 4.0E-42 | BF035327.1 | EST_HUMAN | 801468531F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862086 5' |
| 1512 | 14683 | 27750 | 3.79 | 2.0E-42 | BF376834.1 | EST_HUMAN | RC0-TN0079-110900-024-g07 TN0079 Homo sapiens cDNA |
| 2466 | 16593 | 28718 | 1.6 | 2.0E-42 | AV690218.1 | EST_HUMAN | AV690218 GK Homo sapiens cDNA clone GKCCBB08 5' |
| 2483 | 15610 | | 4.24 | 2.0E-42 | AW888344.1 | EST_HUMAN | RC3-NN0070-270400-011-h10 NN0070 Homo sapiens cDNA |
| 2486 | 15623 | 28742 | 3.6 | 2.0E-42 | AW250059.1 | EST_HUMAN | 2819293.3 prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2819283 3' |
| 5875 | 19065 | 32372 | 11.82 | 2.0E-42 | AW955388.1 | EST_HUMAN | EST387438 MAGC resequences, MAGC Homo sapiens cDNA |
| 5875 | 19065 | 32373 | 11.82 | 2.0E-42 | AW955388.1 | EST_HUMAN | EST387438 MAGC resequences, MAGC Homo sapiens cDNA |
| 6892 | 20044 | 33452 | 0.9 | 2.0E-42 | A052586.1 | EST_HUMAN | chr83405.x1 Soares fetal_liver_spleen_1NF1S_S1 Homo sapiens cDNA clone IMAGE:1853417 3' |
| 10046 | 23084 | 36685 | 1.28 | 2.0E-42 | BE538918.1 | EST_HUMAN | 801061284F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3447620 5' |
| 10260 | 23295 | 36892 | 0.64 | 2.0E-42 | P81649 | SWISSPROT | RIBONUCLEASE K3 (RNASE K3) |
| 10260 | 23295 | 36892 | 0.64 | 2.0E-42 | P81649 | SWISSPROT | RIBONUCLEASE K3 (RNASE K3) |
| 10260 | 23295 | 36892 | 0.64 | 2.0E-42 | P81649 | SWISSPROT | RIBONUCLEASE K3 (RNASE K3) |
| 12037 | 25019 | 38723 | 1.53 | 2.0E-42 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 762 | 19332 | 26977 | 1.75 | 1.0E-42 | X57147.1 | NT | Human endogenous retrovirus pHE.1 (ERV9) |
| 1067 | 14233 | 27292 | 2.2 | 1.0E-42 | AW295809.1 | EST_HUMAN | UI-H-B1-afh-e-04-0-UI.s1 NCL CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2721871 3' |
| 1125 | 14290 | 27345 | 1.74 | 1.0E-42 | AJ251818.1 | NT | Homo sapiens partial C9 gene for complement component C9, exon 1 |
| 1125 | 14290 | 27345 | 1.74 | 1.0E-42 | AJ251818.1 | NT | Homo sapiens partial C9 gene for complement component C9, exon 1 |
| 1125 | 14290 | 27346 | 1.74 | 1.0E-42 | AJ251818.1 | NT | Homo sapiens NADH-ubiquinone oxidoreductase AGGG subunit precursor homolog mRNA, nuclear gene |
| 1271 | 18033 | 27489 | 11.89 | 1.0E-42 | AF087166.1 | NT | encoding mitochondrial protein, complete cds |

Page 294 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO. | Exon SEQ ID NO. | ORF SEQ ID NO. | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 1271 | 16033 | 27499 | 11.99 | 1.0E-42 | AF067166.1 | NT | Homo sapiens NADH-ubiquinone oxidoreductase AGG3 subunit precursor homolog mRNA, nuclear gene encoding mitochondrial protein, complete cds |
| 1735 | 14884 | 27977 | 1.15 | 1.0E-42 | 11423219 | NT | Homo sapiens rec (LOC61201), mRNA |
| 2087 | 15227 | 28349 | 1.18 | 1.0E-42 | AF110296.1 | NT | Homo sapiens PDNFP1 gene, exon 17 |
| 2609 | 15733 | 28849 | 1.42 | 1.0E-42 | 5174458 | NT | Homo sapiens major histocompatibility complex, class II, DM alpha (HLA-DMA) mRNA |
| 3026 | 16205 | 29228 | 9.15 | 1.0E-42 | 4505524 | NT | Homo sapiens origin recognition complex, subunit 5 (yeast homolog)-like (ORC6L) mRNA, and translated products |
| 3799 | 16930 | 29564 | 3.31 | 1.0E-42 | 7682027 | NT | Homo sapiens KIAA0255 gene product (KIAA0255), mRNA |
| 3895 | 17054 | 30054 | 1.11 | 1.0E-42 | 5031610 | NT | Homo sapiens Golgi vesicular membrane trafficking protein p18 (BET1) mRNA |
| 4036 | 17192 | 30202 | 0.99 | 1.0E-42 | AL163287.2 | NT | Homo sapiens chromosome 21 segment HS21C087 |
| 4361 | 17504 | 30486 | 3.47 | 1.0E-42 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 4716 | 17851 | 30534 | 0.61 | 1.0E-42 | AW613617.1 | EST_HUMAN | RC3-ST0197-161093-012-a03 ST0197 Homo sapiens cDNA |
| 4867 | 18000 | 30984 | 2.37 | 1.0E-42 | 5803122 | NT | Homo sapiens proteasome inhibitor (P31), mRNA |
| 4867 | 18000 | 30985 | 2.37 | 1.0E-42 | 5803122 | NT | Homo sapiens proteasome inhibitor (P31), mRNA |
| 4901 | 18031 | 31020 | 6.13 | 1.0E-42 | 4606768 | NT | Homo sapiens tyrosine receptor 3 (RYR3) mRNA |
| 11440 | 24501 | 38169 | 1.39 | 1.0E-42 | BE408611.1 | EST_HUMAN | 601304125F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3638310 5' |
| 10291 | 23326 | 36928 | 6.16 | 9.0E-43 | 4767869 | NT | Homo sapiens chromodomain protein, Y chromosome-like (CDYL) mRNA |
| 669 | 13855 | 26883 | 20.77 | 8.0E-43 | AV736824.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C087 |
| 669 | 13855 | 26884 | 20.77 | 8.0E-43 | AV736824.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C087 |
| 718 | 13900 | 26938 | 5.12 | 8.0E-43 | 8923276 | NT | Homo sapiens hypothetical protein FLJ20287 (FLJ20287), mRNA |
| 718 | 13900 | 26939 | 5.12 | 8.0E-43 | 8923276 | NT | Homo sapiens hypothetical protein FLJ20287 (FLJ20287), mRNA |
| 718 | 13900 | 26940 | 5.12 | 8.0E-43 | 8923276 | NT | Homo sapiens hypothetical protein FLJ20287 (FLJ20287), mRNA |
| 5816 | 19008 | 32312 | 0.72 | 8.0E-43 | H13562.1 | EST_HUMAN | Homo sapiens hypothetical protein FLJ20287 (FLJ20287), mRNA |
| 3731 | 16892 | 29896 | 7.48 | 7.0E-43 | AW246442.1 | EST_HUMAN | Y08611.1 Soares placenta NB2HP Homo sapiens cDNA clone IMAGE:148172 5' |
| 8968 | 22047 | | 3.98 | 7.0E-43 | AI936748.1 | EST_HUMAN | 2822251.5prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2822251 5' |
| 1374 | 14529 | | 11.62 | 6.0E-43 | AA461890.1 | EST_HUMAN | wp89501.x1 NCI CGAP Brn25 Homo sapiens cDNA clone IMAGE:2466985 3' similar to TR-O15475 |
| 2637 | 15760 | | 4.03 | 6.0E-43 | AV708201.1 | EST_HUMAN | O16475 UNNAMED HERV-H PROTEIN, contains LTR7.b1 LTR7 repetitive element ; |
| 4983 | 18002 | 31068 | 252.27 | 6.0E-43 | AI421540.1 | EST_HUMAN | ne72306.s1 NCI CGAP Exv1 Homo sapiens cDNA clone IMAGE:808803 similar to gb:105095 609 |
| 6441 | 19608 | 32971 | 2.63 | 6.0E-43 | 9955973 | NT | RIBOSOMAL PROTEIN L30 (HUMAN); |
| | | | | | | | AV708201 ADC Homo sapiens cDNA clone IMAGE:2097318 3' similar to SW-BRR2_YEAST |
| | | | | | | | tt26c04.x1 NCI CGAP Brn23 Homo sapiens cDNA clone ADCACC10 5' |
| | | | | | | | P32639 PRE-MRNA SPlicing HELICASE BRR2 ; |
| | | | | | | | Homo sapiens ATP-binding cassette, sub-family C (CFTR/MRP), member 3 (ABCC3), transcript variant MRP3B, mRNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 7048 | 20101 | 33518 | 1.8 | 6.0E-43 | AW48897.1 | EST_HUMAN | hd30b04.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2810691 3' similar to contains MER1.13 MER1 MER1 repetitive element; |
| 10056 | 23094 | 36696 | 1.77 | 6.0E-43 | AA195164.1 | EST_HUMAN | z35606.r1 Soares_NHIMPu_S1 Homo sapiens cDNA clone IMAGE:695410 5' similar to TR:G529641 G529641 DB1, COMPLETE CDS, contains element PTR1 repetitive element; |
| 11363 | 24424 | | 2.49 | 6.0E-43 | AL119159.1 | EST_HUMAN | DKFZp761L1712_r1 761 (synonym: hemy2) Homo sapiens cDNA clone DKFZp761L1712 5' |
| 145 | 13370 | | 1.82 | 5.0E-43 | AL163213.2 | NT | Homo sapiens chromosome 21 segment HS21C013 |
| 515 | 13709 | 26736 | 3.4 | 5.0E-43 | AA382780.1 | EST_HUMAN | EST96033 Testis1 Homo sapiens cDNA 5' end |
| 2808 | 16066 | 29100 | 1.59 | 5.0E-43 | AV732578.1 | EST_HUMAN | AV732578 HTF Homo sapiens cDNA clone HTFANC06 5' |
| 6435 | 20096 | 33512 | 0.9 | 5.0E-43 | AB13509.1 | EST_HUMAN | tw22e07.x1 NCL_CGAP_Bm52 Homo sapiens cDNA clone IMAGE:2260452 3' |
| 7043 | 20096 | 33512 | 0.89 | 5.0E-43 | AB13509.1 | EST_HUMAN | tw22e07.x1 NCL_CGAP_Bm52 Homo sapiens cDNA clone IMAGE:2260452 3' |
| 8381 | 21462 | 34985 | 0.84 | 5.0E-43 | AA442271.1 | EST_HUMAN | zr54d03.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:757420 6' |
| 8381 | 21462 | 34988 | 0.64 | 5.0E-43 | AA442271.1 | EST_HUMAN | zr54d03.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:757420 6' |
| 9080 | 22160 | | 0.73 | 5.0E-43 | H74277.1 | EST_HUMAN | y495g12.1 Soares fetal liver spleen 1N1FLS Homo sapiens cDNA clone IMAGE:220610 5' |
| 9584 | 22706 | 36272 | 4.09 | 5.0E-43 | AA455288.1 | EST_HUMAN | aa33d08.r1 NCL_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:815085 5' |
| 10609 | 23643 | 37251 | 2.6 | 5.0E-43 | AL733244.1 | EST_HUMAN | co52e10.x5 NCL_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1669810 3' similar to TR:P00591 P00591 PV14 GENE; |
| 10651 | 23695 | 37295 | 1.02 | 5.0E-43 | AL049110.1 | EST_HUMAN | DKFZp434D0119_r1 434 (synonym: htae3) Homo sapiens cDNA clone DKFZp434D0119 |
| 11001 | 24080 | 37715 | 4.53 | 5.0E-43 | AW863007.1 | EST_HUMAN | MIR2-SN0007-280400-004-c02 SN0007 Homo sapiens cDNA |
| 11213 | 24282 | 37621 | 2.24 | 5.0E-43 | W28011.1 | EST_HUMAN | 55a4 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA |
| 895 | 15987 | 27227 | 4.4 | 4.0E-43 | AF003528.1 | NT | Homo sapiens X-linked anhidrotic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 6373 | 18576 | 31444 | 1.09 | 4.0E-43 | AI056338.1 | EST_HUMAN | cy47h03.x1 NCL_CGAP_Bm23 Homo sapiens cDNA clone IMAGE:1668013 3' |
| 6469 | 19695 | 33028 | 0.89 | 4.0E-43 | 6996009 | NT | Homo sapiens glycyl-tRNA synthetase (GARS), mRNA |
| 7280 | 20363 | | 1.6 | 4.0E-43 | 11416763 | NT | Homo sapiens protocadherin beta 6 (PCDH6), mRNA |
| 8371 | 21462 | 34975 | 5.18 | 4.0E-43 | AI244341.1 | EST_HUMAN | q176a02.x1 NCL_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1865354 3' similar to contains MER10.13 MER10 repetitive element; |
| 8371 | 21452 | 34976 | 5.18 | 4.0E-43 | AI244341.1 | EST_HUMAN | q176a02.x1 NCL_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1865354 3' similar to contains MER10.13 MER10 repetitive element; |
| 10521 | 23556 | 37164 | 1.02 | 4.0E-43 | 8005967 | NT | MER10 repetitive element; |
| 12311 | 25227 | | 2.7 | 4.0E-43 | R20850.1 | EST_HUMAN | Homo sapiens zinc finger protein 161 (ZNF161), mRNA |
| 13030 | 25898 | | 1.33 | 4.0E-43 | AI436093.1 | EST_HUMAN | y90b05.r1 Soares Infant brain 1N1B Homo sapiens cDNA clone IMAGE:31363 5' similar to contains MER10 repetitive element; |
| | | | | | | | th92b12.x1 Soares NSF_FB_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2726111 3' similar to TR:O02710 O02710 GAG POLYPROTEIN.; |

Page 296 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 1240 | 14309 | | 3.46 | 3.0E-43 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 1730 | 14880 | 27971 | 2.62 | 3.0E-43 | X97869.1 | NT | H. sapiens gene encoding La autoantigen |
| 2120 | 16055 | 28377 | 1.1 | 3.0E-43 | R83422.1 | EST_HUMAN | yp8201.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:193946 5' similar to contains MSR1 repetitive element; |
| 3682 | 16825 | 29834 | 1.22 | 3.0E-43 | S89002.1 | NT | AML1-EVI-1=AML1-EVI-1 fusion protein (rearranged translocation) [human, leukemic cell line SKH1, mRNA Mutant, 5938 nt] |
| 4405 | 17548 | 30832 | 0.9 | 3.0E-43 | AA548184.1 | EST_HUMAN | nt53408.s1 NCL CGAP_P77 Homo sapiens cDNA clone IMAGE:1017419 |
| 6014 | 18188 | 32615 | 0.84 | 3.0E-43 | D34813.1 | NT | Human TBXAS1 gene for thromboxane synthase, promoter region and exon 1 |
| 6487 | 18654 | 33016 | 1.58 | 3.0E-43 | 7305360 | NT | Mus musculus otogelin (Otog), mRNA |
| 6487 | 18654 | 33017 | 1.56 | 3.0E-43 | 7305360 | NT | Mus musculus otogelin (Otog), mRNA |
| 6887 | 20019 | 33428 | 5.08 | 3.0E-43 | U85487.1 | NT | Human ribosomal RNA upstream binding transcription factor (UBTF) gene, partial cds |
| 8357 | 21438 | | 4.39 | 3.0E-43 | AA458824.1 | EST_HUMAN | aa8811.s1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:838413 3' similar to contains THR12 THR repetitive element; |
| 9020 | 22039 | 35639 | 1 | 3.0E-43 | 7681721 | NT | Homo sapiens hypothetical protein (HSA011919), mRNA |
| 10088 | 23106 | 36709 | 0.88 | 3.0E-43 | 11420217 | NT | Homo sapiens similar to ornithine carbamoyltransferase (H. sapiens) (LOC63848), mRNA |
| 12028 | 26010 | 38712 | 1.42 | 3.0E-43 | 5730038 | NT | Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA |
| 188 | 13410 | | 7.24 | 2.0E-43 | A1190764.1 | EST_HUMAN | qd81c09.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1733968 3' similar to contains PTR7.13 PTR7 PTR7 repetitive element; |
| 6604 | 19764 | 33152 | 1.2 | 2.0E-43 | BE222778.1 | EST_HUMAN | nt53408.x1 NCL CGAP_Brn41 Homo sapiens cDNA clone IMAGE:3173780 3' similar to contains element MER40 repetitive element; |
| 6604 | 19764 | 33153 | 1.2 | 2.0E-43 | BE222778.1 | EST_HUMAN | nt53408.x1 NCL CGAP_Brn41 Homo sapiens cDNA clone IMAGE:3173780 3' similar to contains element MER40 repetitive element; |
| 7426 | 20503 | 33973 | 1.29 | 2.0E-43 | AW207390.1 | EST_HUMAN | UHH-B11-af1-a-09-O-J1.s1 NCL CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2721712 3' |
| 8503 | 21564 | | 3.16 | 2.0E-43 | U43701.1 | NT | Human ribosomal protein L23a mRNA, complete cds |
| 11476 | 24535 | | 4.75 | 2.0E-43 | T03007.1 | EST_HUMAN | FB105 Fetal brain, Stratagene Homo sapiens cDNA clone FB105 3' end similar to LINE-1 |
| 1681 | 14833 | 27917 | 2.95 | 1.0E-43 | AF154836.1 | NT | Homo sapiens Ras-like GTP-binding protein (RAS27A) gene, exons 1b and 2 |
| 1681 | 14833 | 27918 | 2.95 | 1.0E-43 | AF154836.1 | NT | Homo sapiens Ras-like GTP-binding protein (RAS27A) gene, exons 1b and 2 |
| 1742 | 14891 | 27885 | 4.12 | 1.0E-43 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 2766 | 16902 | 29009 | 4.73 | 1.0E-43 | BF348283.1 | EST_HUMAN | 602022313F1 NCL CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4167686 5' |
| 5526 | 18723 | 31740 | 0.88 | 1.0E-43 | 4885544 | NT | Homo sapiens Sp4 transcription factor (SP4) mRNA |
| 6744 | 18900 | 33291 | 5.84 | 1.0E-43 | 4507168 | NT | Homo sapiens Sp4 transcription factor (SP4) mRNA |
| 6744 | 18900 | 33292 | 5.84 | 1.0E-43 | 4507168 | NT | Homo sapiens Sp4 transcription factor (SP4) mRNA |

Page 297 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 7108 | 18533 | 31488 | 1.19 | 1.0E-43 | R19751.1 | EST_HUMAN | y40601.1 Soares Infant brain 1N1B Homo sapiens cDNA clone IMAGE:34732 5' similar to |
| 8117 | 21189 | 34720 | 0.6 | 1.0E-43 | AF175285.1 | NT | SP-BD38_MOUSE P28656 BRAIN PROTEIN DN38 ; |
| 8286 | 21338 | | 2.17 | 1.0E-43 | AF198490.1 | NT | Homo sapiens vacuolar sorting protein 35 (VPS35) mRNA, complete cds |
| 9037 | 22116 | 35859 | 28.54 | 1.0E-43 | AW963676.1 | EST_HUMAN | Homo sapiens 8q22.1 region and MTG8 (CBFA2T1) gene, partial cds |
| 10498 | 23633 | 37143 | 0.68 | 1.0E-43 | AW953229.1 | EST_HUMAN | EST375749 MAGE resequences, MAGH Homo sapiens cDNA |
| 11206 | 24275 | 37812 | 5.81 | 1.0E-43 | AI984951.1 | EST_HUMAN | EST365298 MAGE resequences, MAGB Homo sapiens cDNA |
| 11847 | 24728 | 38418 | 3.05 | 1.0E-43 | 11424378 | NT | wt87101.X1 NCI_CGAP_Kid111 Homo sapiens cDNA clone IMAGE:2484705 3' |
| 12248 | 25189 | | 2.29 | 1.0E-43 | AL137984.1 | EST_HUMAN | Homo sapiens calcium channel, voltage-dependent, alpha 1E subunit (CACNA1E), mRNA |
| 12550 | 25373 | 32071 | 3.16 | 1.0E-43 | AI675416.1 | EST_HUMAN | DKFZp761D1015_r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761D1015 5' |
| 12805 | 25538 | 32013 | 3.21 | 9.0E-44 | 11418322 | NT | wt566b04.X1 NCI_CGAP_P128 Homo sapiens cDNA clone IMAGE:2313775 3' |
| 913 | 14088 | 27163 | 5.32 | 8.0E-44 | AI222985.1 | EST_HUMAN | Homo sapiens cadherin EGF LAG seven-pass G-type receptor 1 (CELSR1), mRNA |
| 913 | 14088 | 27154 | 5.32 | 8.0E-44 | AI222985.1 | EST_HUMAN | qf23g01.X1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1845552 3' |
| 8736 | 21815 | 35350 | 2.98 | 8.0E-44 | X94354.1 | NT | qf23g01.X1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1845552 3' |
| 10546 | 23580 | 37189 | 0.5 | 8.0E-44 | 11423497 | NT | H. sapiens DNA for Cons cGMP-PDE gene |
| 10546 | 23580 | 37189 | 0.5 | 8.0E-44 | 11423497 | NT | Homo sapiens small proline-rich protein 2C (SPRR2C), mRNA |
| 10546 | 23580 | 37189 | 0.5 | 8.0E-44 | 11423497 | NT | Homo sapiens small proline-rich protein 2C (SPRR2C), mRNA |
| 11436 | 24487 | 38164 | 2.87 | 8.0E-44 | Y10498.2 | NT | Homo sapiens mRNA for thymidine kinase, partial |
| 11887 | 24972 | 38677 | 1.78 | 8.0E-44 | L29139.1 | NT | Homo sapiens myosin mRNA, partial cds |
| 12601 | 25345 | 32055 | 2.89 | 8.0E-44 | 11527389 | NT | Homo sapiens myosin mRNA, partial cds |
| 12544 | 25735 | 31946 | 2.17 | 8.0E-44 | 11418086 | NT | Homo sapiens putative nuclear protein (HRIHFB2122), mRNA |
| 12945 | 25938 | 31760 | 1.85 | 8.0E-44 | 11418099 | NT | Homo sapiens putative nuclear protein (HRIHFB2122), mRNA |
| 13126 | 25735 | 31946 | 2.29 | 8.0E-44 | 11418086 | NT | Homo sapiens putative nuclear protein (HRIHFB2122), mRNA |
| 676 | 13862 | | 1.13 | 7.0E-44 | R06035.1 | EST_HUMAN | y83901.1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:124920 5' |
| 2307 | 15438 | 28573 | 1.19 | 7.0E-44 | 6031888 | EST | Homo sapiens LIM domain-containing preferred translocation partner in lipoma (LPP) mRNA |
| 3031 | 16207 | 29228 | 4.44 | 7.0E-44 | AF048729.1 | NT | Homo sapiens minisatellite ms32 repeat region |
| 3031 | 16207 | 29230 | 4.44 | 7.0E-44 | AF048729.1 | NT | Homo sapiens minisatellite ms32 repeat region |
| 3985 | 17123 | 30128 | 2.71 | 7.0E-44 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 4356 | 17499 | 30478 | 0.85 | 7.0E-44 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 4356 | 17499 | 30480 | 0.85 | 7.0E-44 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 8379 | 21400 | 34983 | 2.39 | 7.0E-44 | AU169839.1 | EST_HUMAN | AU169839 Y78AA1 Homo sapiens cDNA clone Y78AA1000489 3' |
| 6229 | 19404 | 32754 | 0.87 | 6.0E-44 | Z20940.1 | EST_HUMAN | HSAA04DEYUP_Homo fetal Brain Whole tissue Homo sapiens cDNA |
| 314 | 13550 | | 4.25 | 5.0E-44 | AJ289880.1 | NT | Homo sapiens KIAA0851 gene (partial), X73 gene and LZTFL1 gene |
| 342 | 13553 | | 2.42 | 5.0E-44 | AJ289880.1 | NT | Homo sapiens KIAA0851 gene (partial), X73 gene and LZTFL1 gene |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-------------------|-------------------|----------------------|---|-----------------------------|-------------------------------|--|
| 8072 | 21154 | 34873 | 4.12 | 5.0E-44 | AI568523.1 | EST_HUMAN | tn40002.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2170083 3' similar to contains OFR.11 |
| 9684 | 22726 | | 1.39 | 5.0E-44 | AU124571.1 | EST_HUMAN | OFR OFR repetitive element: |
| 3501 | 16693 | 29678 | 4.27 | 4.0E-44 | AL163303.2 | NT | AU124571 NT2RM4 Homo sapiens cDNA clone NT2RM4000218 5' |
| 5128 | 18253 | | 0.89 | 4.0E-44 | AI495225.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C103 |
| 7639 | 20708 | 34187 | 0.87 | 4.0E-44 | BE583176.1 | EST_HUMAN | ti11d02.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2130147 3' |
| 8466 | 21547 | 35077 | 0.86 | 4.0E-44 | L21948.1 | NT | 601508601F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3910152 5' |
| 9076 | 22158 | | 0.71 | 4.0E-44 | BE176618.1 | EST_HUMAN | Human fibrillin (FBN1) locus polymorphism |
| 11513 | 24570 | 38247 | 5.64 | 4.0E-44 | U90878.1 | NT | RG3-HT0585-010400-023-d08 HT0585 Homo sapiens cDNA |
| 1827 | 14976 | | 1.5 | 3.0E-44 | 6912477 | NT | Homo sapiens carboxyl terminal LIM domain protein (CLIM1) mRNA, complete cds |
| 3167 | 16342 | 29350 | 5.11 | 3.0E-44 | AA169851.1 | EST_HUMAN | Homo sapiens karyophedin alpha 6 (imporlin alpha 7) (KPNAB6) mRNA |
| 7870 | 21020 | 34533 | 0.88 | 3.0E-44 | BE084820.1 | EST_HUMAN | zp18605.r1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:608777 5' |
| 9719 | 22784 | 36355 | 0.63 | 3.0E-44 | AF005273.1 | NT | 601510547F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3912010 5' |
| 1074 | 14240 | 27266 | 1.43 | 2.0E-44 | 4826685 | NT | Sus scrofa domestica submaxillary apomucin mRNA, complete cds |
| 1074 | 14240 | 27267 | 1.43 | 2.0E-44 | 4826685 | NT | Homo sapiens DEADH (Asp-Glu-Ala-Asp/His) box polypeptide 1 (DDX1) mRNA |
| 1234 | 14393 | 27455 | 3.61 | 2.0E-44 | 5803200 | NT | Homo sapiens DEADH (Asp-Glu-Ala-Asp/His) box polypeptide 1 (DDX1) mRNA |
| 1234 | 14393 | 27456 | 3.61 | 2.0E-44 | 5803200 | NT | Homo sapiens transmembrane trafficking protein (TMP21), mRNA |
| 1340 | 14466 | 27568 | 6.82 | 2.0E-44 | AF133588.1 | NT | Homo sapiens transmembrane trafficking protein (TMP21), mRNA |
| 1400 | 14554 | 27628 | 1.6 | 2.0E-44 | BE465325.1 | EST_HUMAN | Homo sapiens RAB36 (RAB36) mRNA, complete cds |
| 2219 | 15353 | 28484 | 3.07 | 2.0E-44 | AF070651.1 | NT | hw14g06.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3182898 3' similar to SW:OXYB_HUMAN |
| 2605 | 15728 | | 1.26 | 2.0E-44 | 4507592 | NT | P22059 OXYSTEROL-BINDING PROTEIN.: |
| 2642 | 16765 | 28879 | 0.94 | 2.0E-44 | D25303.1 | NT | Homo sapiens tissue-type bone marrow zinc finger protein 4 mRNA, complete cds |
| 2876 | 15798 | | 2.3 | 2.0E-44 | 5901833 | NT | Homo sapiens tumor necrosis factor (ligand) superfamily, member 10 (TNFSF10) mRNA |
| 3559 | 16724 | 29740 | 1.34 | 2.0E-44 | D87675.1 | NT | Human mRNA for integrin alpha subunit, complete cds |
| 4692 | 17827 | 30813 | 1.75 | 2.0E-44 | AW894378.1 | EST_HUMAN | Homo sapiens adaptor-related protein complex 4, sigma 1 subunit (GLAPS4), mRNA |
| 6220 | 19395 | 32744 | 1.75 | 2.0E-44 | 11449801 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 6998 | 18515 | 31507 | 2.18 | 2.0E-44 | AF039968.1 | NT | PM4-SN0018-120500-003-404 SN0016 Homo sapiens cDNA |
| 7572 | 20644 | 34121 | 3.8 | 2.0E-44 | 11419228 | NT | Homo sapiens chemokine (C-C motif) receptor 8 (CCR8), mRNA |
| 7572 | 20644 | 34122 | 3.8 | 2.0E-44 | 11419228 | NT | Homo sapiens general transcription factor 2-1 (GTF2) mRNA, alternatively spliced product, complete cds |
| 8623 | 21703 | 35238 | 0.7 | 2.0E-44 | 7706370 | NT | Homo sapiens glutamate receptor, metabotropic 3 (GRM3), mRNA |
| 8623 | 21703 | 35239 | 0.7 | 2.0E-44 | 7706370 | NT | Homo sapiens glutamate receptor, metabotropic 3 (GRM3), mRNA |
| 8819 | 21898 | 35437 | 1.8 | 2.0E-44 | BE389058.1 | EST_HUMAN | Homo sapiens vesicle transport-related protein (KIAA0917), mRNA |
| | | | | | | | Homo sapiens vesicle transport-related protein (KIAA0917), mRNA |
| | | | | | | | 80128691.f1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3913588 5' |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 12152 | 25122 | | 4.59 | 2.0E-44 | BE244902.1 | EST_HUMAN | TCBAP1E2795 Pediatric pre-B cell acute lymphoblastic leukemia BAYlor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP2795 |
| 12730 | 26094 | | 1.55 | 2.0E-44 | 4826863 | NT | Homo sapiens neuronal cell adhesion molecule (NRCAM) mRNA |
| 63 | 13262 | 28306 | 5.24 | 1.0E-44 | 7657334 | NT | Homo sapiens Mississippin/NIK-related kinase (MINK), mRNA |
| 53 | 13262 | 28307 | 6.24 | 1.0E-44 | 7657334 | NT | Homo sapiens Mississippin/NIK-related kinase (MINK), mRNA |
| 594 | 13784 | 28804 | 1.63 | 1.0E-44 | AW653132.1 | EST_HUMAN | RC1-CT0249-030300-028-112 CT0249 Homo sapiens cDNA |
| 1224 | 14364 | | 1.96 | 1.0E-44 | AW994803.1 | EST_HUMAN | RC1-BN0038-110300-012-b01 BN0039 Homo sapiens cDNA |
| 1605 | 14758 | | 8.06 | 1.0E-44 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 2299 | 15431 | 28563 | 6.17 | 1.0E-44 | AA434554.1 | EST_HUMAN | zw53d02.r1 Soares total fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:773763 5' similar to contains THR.L3 THR repetitive element; |
| 2299 | 15431 | 28564 | 6.17 | 1.0E-44 | AA434554.1 | EST_HUMAN | zw53d02.r1 Soares total fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:773763 5' similar to contains THR.L3 THR repetitive element; |
| 2818 | 15932 | 29043 | 1.74 | 1.0E-44 | AF198779.1 | NT | Homo sapiens transcription factor (GHM enhancer 3, JM11 protein, JMA protein, JM5 protein, T54 protein, JM10 protein, A4 differentiation-dependent protein, triple LIM domain protein 6, and synaptophysin genes, complete cds, and L-type calcium channel α -1a01cd9.6) Soares_NHIMP.L1 S1 Homo sapiens cDNA clone IMAGE:811984 3' |
| 3819 | 16978 | | 3 | 1.0E-44 | AA455889.1 | EST_HUMAN | Homo sapiens alpha satellite DNA, M1 monomer type |
| 5221 | 18343 | 31314 | 0.88 | 1.0E-44 | AJ130755.1 | NT | Homo sapiens alpha satellite DNA, M1 monomer type |
| 5221 | 18343 | 31315 | 0.88 | 1.0E-44 | AJ130755.1 | NT | Homo sapiens alpha satellite DNA, M1 monomer type |
| 8460 | 21541 | 35070 | 0.91 | 1.0E-44 | AW957073.1 | EST_HUMAN | EST378147 MAGE resequences, MAGJ Homo sapiens cDNA |
| 8460 | 21541 | 35071 | 0.91 | 1.0E-44 | AW957073.1 | EST_HUMAN | EST378147 MAGE resequences, MAGJ Homo sapiens cDNA |
| 8048 | 21927 | 35466 | 0.96 | 1.0E-44 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 9227 | 22305 | 35848 | 0.56 | 1.0E-44 | A1337183.1 | EST_HUMAN | Q488g07.x1 NCI_CGAP_G08 Homo sapiens cDNA clone IMAGE:2009028 3' |
| 11284 | 24333 | | 4.13 | 1.0E-44 | AV714603.1 | EST_HUMAN | AV714608 DCB Homo sapiens cDNA clone DCBBYE03 5' |
| 11820 | 24809 | 38505 | 3.47 | 1.0E-44 | 10092684 | NT | Homo sapiens Sushi domain (SCR repeat) containing (BK6SA6.2), mRNA |
| 11890 | 24878 | 38574 | 3.21 | 1.0E-44 | AW846967.1 | EST_HUMAN | RC1-CT0198-150998-011-C08 CT0198 Homo sapiens cDNA |
| 11890 | 24878 | 38575 | 3.21 | 1.0E-44 | AW846967.1 | EST_HUMAN | RC1-CT0198-150998-011-C08 CT0198 Homo sapiens cDNA |
| 4701 | 17836 | 30821 | 0.98 | 9.0E-45 | 8922391 | NT | Homo sapiens hypothetical protein FLJ10378 (FLJ10378), mRNA |
| 4701 | 17836 | 30822 | 0.98 | 9.0E-45 | 8922391 | NT | Homo sapiens hypothetical protein FLJ10378 (FLJ10378), mRNA |
| 6787 | 18942 | 33340 | 1.41 | 9.0E-45 | AB023212.1 | NT | Homo sapiens mRNA for KIAA0985 protein, partial cds |
| 2591 | 15716 | 28834 | 3.9 | 8.0E-45 | 5174718 | NT | Homo sapiens TRK-fused gene (NOTE: non-standard symbol and name) (TFG) mRNA |
| 5193 | 19315 | 31283 | 9.63 | 8.0E-45 | 5174718 | NT | Homo sapiens TRK-fused gene (NOTE: non-standard symbol and name) (TFG) mRNA |
| 8298 | 21380 | 34802 | 1.03 | 8.0E-45 | AA97985.1 | EST_HUMAN | EST190863 Synovial sarcoma Homo sapiens cDNA 5' end |
| 1593 | 14735 | | 2.36 | 6.0E-45 | A1675425.1 | EST_HUMAN | wb89c06.x1 NCI_CGAP_P28 Homo sapiens cDNA clone IMAGE:2313802 3' similar to contains L1.1 L1 repetitive element; |

Page 300 of 550
Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 4087 | 17242 | | 3.77 | 6.0E-45 | AW157570.1 | EST_HUMAN | au63h07.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2782909 3' similar to SW:R13A_HUMAN P40429 60S RIBOSOMAL PROTEIN L13A; |
| 12911 | 26164 | | 1.89 | 6.0E-45 | 11418213 | NT | Homo sapiens ADP-ribosylation factor GTPase activating protein 1 (ARFGAP1), mRNA |
| 915 | 14090 | | 1.71 | 6.0E-45 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 2058 | 15198 | 28313 | 4.42 | 5.0E-45 | BF339627.1 | EST_HUMAN | CM4-CN0044-180200-515-01 CN0044 Homo sapiens cDNA |
| 3281 | 13455 | 29477 | 2.87 | 6.0E-45 | AI523766.1 | EST_HUMAN | tg94f07.x1 NCI_CGAP CLL1 Homo sapiens cDNA clone IMAGE:2118453 3' similar to SW:PAX1_MOUSE P09084 PAIRED BOX PROTEIN PAX-1; |
| 5629 | 18823 | 31897 | 8.95 | 6.0E-45 | AA397781.1 | EST_HUMAN | 2172403.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:727877 3' similar to contains element TAR1 repetitive element; |
| 6143 | 19321 | 32684 | 1.09 | 5.0E-45 | Y18933.1 | NT | Homo sapiens MCP-1 gene and enhancer region |
| 6143 | 19321 | 32685 | 1.09 | 5.0E-45 | Y18933.1 | NT | Homo sapiens MCP-1 gene and enhancer region |
| 6190 | 19366 | 32714 | 0.92 | 5.0E-45 | AB022318.1 | NT | Homo sapiens mRNA for Inducible nitric oxide synthase, complete cds |
| 6190 | 19366 | 32715 | 0.92 | 5.0E-45 | AB022318.1 | NT | Homo sapiens mRNA for Inducible nitric oxide synthase, complete cds |
| 6318 | 19490 | 32847 | 0.87 | 5.0E-45 | 11498268 | NT | Homo sapiens zinc finger protein 277 (ZNF277), mRNA |
| 6318 | 19490 | 32848 | 0.87 | 5.0E-45 | 11498268 | NT | Homo sapiens zinc finger protein 277 (ZNF277), mRNA |
| 8471 | 21552 | 35082 | 1.12 | 5.0E-45 | 11418704 | NT | Homo sapiens bone morphogenetic protein 5 (BMP5), mRNA |
| 9241 | 22318 | 35861 | 1.46 | 5.0E-45 | 4759223 | NT | Homo sapiens programmed cell death 5 (PDCD5), mRNA |
| 11697 | 24982 | 38698 | 2.6 | 5.0E-45 | 8923698 | NT | Homo sapiens golgin-like protein (GLP), mRNA |
| 1167 | 14390 | 27385 | 6.3 | 4.0E-45 | X95828.1 | NT | H. sapiens ART 4 gene |
| 2365 | 15496 | 28622 | 2.16 | 4.0E-45 | BE285622.1 | EST_HUMAN | 801194440F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3538425 5' |
| 9157 | 22235 | | 0.81 | 4.0E-45 | AA228220.1 | EST_HUMAN | no26d07.s1 NCI_CGAP P1 Homo sapiens cDNA clone IMAGE:1009284 similar to contains element L1 repetitive element; |
| 12168 | 26088 | 31659 | 1.36 | 4.0E-45 | 11435947 | NT | Homo sapiens chromosome 12 open reading frame 3 (C12ORF3), mRNA |
| 3411 | 16580 | | 0.93 | 3.0E-45 | T71480.1 | EST_HUMAN | y435f07.r1 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:110246 5' |
| 4199 | 16580 | | 1.03 | 3.0E-45 | T71480.1 | EST_HUMAN | y435f07.r1 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:110246 5' |
| 8368 | 19538 | 32895 | 1.34 | 3.0E-45 | 6753651 | NT | Mus musculus dynein, axon, heavy chain 11 (Dnaht11), mRNA |
| 8368 | 19538 | 32896 | 1.34 | 3.0E-45 | 6753651 | NT | Mus musculus dynein, axon, heavy chain 11 (Dnaht11), mRNA |
| 8945 | 21725 | | 1.76 | 3.0E-45 | AV723976.1 | EST_HUMAN | AV723976 HTB Homo sapiens cDNA clone HTBAAG01 5' |
| 8991 | 20770 | 35610 | 4.31 | 3.0E-45 | 4758461 | NT | Homo sapiens golgi autoantigen, golgin subfamily 4, 2 (GOLGA2) mRNA |
| 10516 | 23650 | 37169 | 7.52 | 3.0E-45 | AL163227.2 | NT | Homo sapiens chromosome 21 segment HS21C027 |
| 10516 | 23650 | 37169 | 7.52 | 3.0E-45 | AL163227.2 | NT | Homo sapiens chromosome 21 segment HS21C027 |
| 13040 | 26078 | | 3.45 | 3.0E-45 | X89211.1 | NT | H. sapiens DNA for endogenous retroviral like element |
| 2572 | 16897 | | 3.12 | 2.0E-45 | AL163218.2 | NT | Homo sapiens chromosome 21 segment HS21C018 |
| 3097 | 18273 | 29287 | 0.92 | 2.0E-45 | AJ243213.1 | NT | Homo sapiens partial 5-HT4 receptor gene, exons 2 to 5 |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 6851 | 19810 | 33198 | 5.45 | 2.0E-45 | L01685.1 | NT | Human eosinophil Charcot-Leyden crystal (CLC) protein (lysophospholipase) gene, promoter and exon 1 |
| 7788 | 20842 | 34334 | 1.1 | 2.0E-46 | BE782184.1 | EST_HUMAN | 601467893F1 NIH_MGC_07 Homo sapiens cDNA clone IMAGE:3870838 5' |
| 8610 | 21890 | 35228 | 0.91 | 2.0E-45 | AW834884.1 | EST_HUMAN | RCOL10001-150200-032-311 LT0001 Homo sapiens cDNA |
| 8784 | 22824 | 36402 | 0.51 | 2.0E-45 | AI638786.1 | EST_HUMAN | le56a01.x1 NCI CGAP_K188 Homo sapiens cDNA clone IMAGE:2232552 3' |
| 11042 | 25887 | 37754 | 12.88 | 2.0E-45 | BE934350.1 | EST_HUMAN | MFC-HT0923-190800-201-e02 HT0923 Homo sapiens cDNA ae87f12.1r1 StrataGene fetal retina 937202 Homo sapiens cDNA clone IMAGE:838319 5' similar to |
| 11450 | 24510 | 38177 | 2.71 | 2.0E-46 | AA488770.1 | EST_HUMAN | TR:G1144569 G1144569 R-SLY1. ; |
| 11794 | 24784 | 38481 | 3.35 | 2.0E-45 | AW270280.1 | EST_HUMAN | XP72a03.x1 NCI CGAP_Ov40 Homo sapiens cDNA clone IMAGE:2745888 3' |
| 11794 | 24784 | 38482 | 3.38 | 2.0E-46 | AW270280.1 | EST_HUMAN | XP72a03.x1 NCI CGAP_Ov40 Homo sapiens cDNA clone IMAGE:2745888 3' |
| 13087 | 25710 | | 2.73 | 2.0E-45 | 11418157 | NT | Homo sapiens calcium channel, voltage-dependent, alpha 11 subunit (CACNA11), mRNA |
| 128 | 13817 | | 1.22 | 1.0E-45 | BE389855.1 | EST_HUMAN | 601284360F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3608183 5' |
| 422 | 13817 | | 1.09 | 1.0E-45 | BE389855.1 | EST_HUMAN | 601284360F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3608183 5' |
| 485 | 13979 | 26714 | 1.02 | 1.0E-46 | 4508412 | NT | Homo sapiens RAP1A, member of RAS oncogene family (RAP1A), mRNA |
| 1201 | 14363 | 27423 | 1.68 | 1.0E-45 | 7657290 | NT | Homo sapiens Langerhans cell specific c-type lectin (LANGERIN), mRNA |
| 3172 | 16347 | 28364 | 10.41 | 1.0E-45 | U32169.1 | NT | Human pro-a2 chain of collagen type XI (COL11A2) gene, complete cds |
| 3591 | 16748 | 29784 | 0.85 | 1.0E-45 | 8659558 | NT | Homo sapiens chromosome 21 open reading frame 1 (C21orf4), mRNA |
| 3664 | 16827 | 29836 | 0.69 | 1.0E-45 | AB046811.1 | NT | Homo sapiens mRNA for KIAA1591 protein, partial cds |
| 4599 | 17738 | 30716 | 8.4 | 1.0E-45 | BE398833.1 | EST_HUMAN | 601289116F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3618803 5' |
| 4848 | 17981 | | 1.05 | 1.0E-46 | H67443.1 | EST_HUMAN | Y05602.r1 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:2043883 5' |
| 6081 | 18209 | 31181 | 1.58 | 1.0E-45 | 11545798 | NT | Homo sapiens nilban protein (NIBAN), mRNA |
| 8220 | 21302 | 34822 | 0.7 | 1.0E-45 | 11422236 | NT | Homo sapiens peroxisomal biogenesis factor 14 (PEX14), mRNA |
| 8220 | 21302 | 34823 | 0.7 | 1.0E-45 | 11422236 | NT | Homo sapiens peroxisomal biogenesis factor 14 (PEX14), mRNA |
| 8806 | 21885 | 36426 | 0.9 | 1.0E-45 | D87875.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 6321 | 22397 | 35950 | 3.92 | 1.0E-46 | BE887843.1 | EST_HUMAN | 601511226F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3912535 5' |
| 8722 | 22787 | 36358 | 0.89 | 1.0E-45 | AB002287.1 | NT | Human mRNA for KIAA0299 gene, partial cds |
| 12369 | 25263 | 32117 | 3.5 | 1.0E-45 | 11418098 | NT | Homo sapiens protein kinase C, alpha binding protein (PRKCGBP), mRNA |
| 12562 | 25384 | | 19.43 | 1.0E-45 | 11526291 | NT | Homo sapiens hypothetical protein FLJ20454 (FLJ20454), mRNA |
| 12568 | 25387 | | 6.42 | 1.0E-45 | 11418177 | NT | Homo sapiens Ran GTPase activating protein 1 (RANGAP1), mRNA |
| 13047 | 25686 | 31963 | 4.02 | 1.0E-45 | 11418157 | NT | Homo sapiens calcium channel, voltage-dependent, alpha 11 subunit (CACNA11), mRNA |
| 8423 | 21504 | 35037 | 2.71 | 9.0E-46 | 8910293 | NT | Mus musculus keratin complex 2, gene 6a (K12-6a), mRNA |
| 8835 | 21814 | | 6.82 | 9.0E-46 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 10697 | 23730 | 37335 | 6.89 | 9.0E-46 | AW249884.1 | EST_HUMAN | 2822449.5prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2822449 5' |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 2513 | 15639 | 28760 | 7.87 | 8.0E-46 | AI433281.1 | EST_HUMAN | h32006.x1 NCL_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2132199 3' similar to gb:J00314_mn2 TUBULIN BETA-1 CHAIN (HUMAN); |
| 2513 | 15639 | 28761 | 7.87 | 8.0E-46 | AI433281.1 | EST_HUMAN | h32006.x1 NCL_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2132199 3' similar to gb:J00314_mn2 TUBULIN BETA-1 CHAIN (HUMAN); |
| 8244 | 21326 | | 2.72 | 8.0E-46 | BE167244.1 | EST_HUMAN | RC5-H10508-280200-012-C12 HT0506 Homo sapiens cDNA |
| 4703 | 17838 | | 4.79 | 7.0E-46 | BE386165.1 | EST_HUMAN | 601277292F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3818118 5' |
| 4928 | 18058 | | 1.33 | 7.0E-46 | BE064386.1 | EST_HUMAN | RC4-BT0310-110300-016-F10 BT0310 Homo sapiens cDNA |
| 6187 | 19343 | 32889 | 4 | 7.0E-46 | 8922708 | NT | Homo sapiens hypothetical protein FLJ10847, mRNA |
| 6623 | 19783 | 33171 | 1.8 | 7.0E-46 | BF105846.1 | EST_HUMAN | 601822835F1 NIH_MGC_77 Homo sapiens cDNA clone IMAGE:4042736 5' |
| 12708 | 25488 | | 2.6 | 7.0E-46 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 2812 | 15926 | 29037 | 6.87 | 8.0E-46 | AI884381.1 | EST_HUMAN | wn31108.x1 NCL_CGAP_U14 Homo sapiens cDNA clone IMAGE:2437576 3' similar to contains MER19.12 MER19 repetitive element; |
| 2812 | 15926 | 29038 | 6.87 | 8.0E-46 | AI884381.1 | EST_HUMAN | wn31108.x1 NCL_CGAP_U14 Homo sapiens cDNA clone IMAGE:2437576 3' similar to contains MER19.12 MER19 repetitive element; |
| 6257 | 19431 | 32778 | 11.57 | 8.0E-46 | AI636448.1 | EST_HUMAN | h63810.x1 NCL_CGAP_K148 Homo sapiens cDNA clone IMAGE:2232835 3' similar to TR:O60363 O60363 SA GENE : |
| 7368 | 20445 | 33907 | 0.99 | 8.0E-46 | AW513244.1 | EST_HUMAN | xo42604.x1 NCL_CGAP_U11 Homo sapiens cDNA clone IMAGE:2706854 3' similar to gb:U08069 DNAJ PROTEIN HOMOLOG 2 (HUMAN); |
| 7541 | 20514 | 34081 | 0.87 | 8.0E-46 | BF509740.1 | EST_HUMAN | UI-H-B1-epg-b-06-0-UI.x1 NCL_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3087298 3' |
| 11673 | 23901 | | 2.14 | 8.0E-46 | BE784971.1 | EST_HUMAN | 601478409F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3880895 5' |
| 209 | 13432 | | 6.31 | 6.0E-46 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 3617 | 16781 | 29786 | 1.17 | 6.0E-46 | BE677194.1 | EST_HUMAN | 7d81g01.x1 Lupsid_dorsal_root_ganglion Homo sapiens cDNA clone IMAGE:3279408 3' |
| 3617 | 16781 | 29787 | 1.17 | 6.0E-46 | BE677194.1 | EST_HUMAN | 7d81g01.x1 Lupsid_dorsal_root_ganglion Homo sapiens cDNA clone IMAGE:3279408 3' |
| 6874 | 20026 | 33436 | 1.52 | 5.0E-46 | BF590442.1 | EST_HUMAN | naa3607.x1 NCL_CGAP_K141 Homo sapiens cDNA clone IMAGE:3268767 3' similar to TR:O75202 O75202 HOMOLOG OF RAT KIDNEY-SPECIFIC ; |
| 7080 | 20174 | 33698 | 3.89 | 6.0E-46 | BF347229.1 | EST_HUMAN | 802021164F1 NCL_CGAP_Bm87 Homo sapiens cDNA clone IMAGE:4156670 5' |
| 7244 | 20327 | 33772 | 0.75 | 6.0E-46 | AW682253.1 | EST_HUMAN | QVA-S10212-120100-076-109 ST0212 Homo sapiens cDNA |
| 7544 | 20616 | 34093 | 0.59 | 6.0E-46 | BE548744.1 | EST_HUMAN | 7b38505.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3230481 3' |
| 658 | 13944 | | 3.95 | 4.0E-46 | AA601143.1 | EST_HUMAN | nc64e09.s1 NCL_CGAP_SS1 Homo sapiens cDNA clone IMAGE:1104520 3' similar to gb:X63741_mn1 FIBULIN-1, ISOFORM A PRECURSOR (HUMAN); |
| 1740 | 14889 | 27981 | 2.89 | 4.0E-46 | AW770544.1 | EST_HUMAN | h88c03.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3008636 3' similar to gb:X14008_mn1 LYSOZYME C PRECURSOR (HUMAN);contains element MER37 repetitive element ; |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 1740 | 14889 | 27892 | 2.99 | 4.0E-46 | AW770544.1 | EST_HUMAN | h186c03.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3008938 3' similar to gb:X14008_ma1 LYSOZYME C PRECURSOR (HUMAN); contains element MER37 repetitive element; |
| 2798 | 15913 | 29021 | 7.4 | 4.0E-46 | M18048.1 | NT | Human endogenous retrovirus RTVL-H2 |
| 5553 | 18750 | 31786 | 2.1 | 4.0E-46 | M38852.1 | NT | Human Ig germline gamma-3 heavy-chain gene V region, partial cds |
| 5553 | 18750 | 31787 | 2.1 | 4.0E-46 | M38852.1 | NT | Human Ig germline gamma-3 heavy-chain gene V region, partial cds |
| 12651 | 25565 | 31899 | 1.36 | 4.0E-46 | AB002059.1 | NT | Homo sapiens DNA for Human P2XM, complete cds |
| 2859 | 15490 | 28520 | 0.94 | 3.0E-46 | 7857203 | NT | Homo sapiens acidic 82 kDa protein mRNA (HSU16552), mRNA |
| 4513 | 17852 | 30840 | 1.21 | 3.0E-46 | 4506376 | NT | Homo sapiens mitogen-activated protein kinase kinase 3 (MAP4K3), mRNA |
| 4898 | 18028 | 31015 | 1.11 | 3.0E-46 | Z73660.1 | NT | H. sapiens Ig lambda light chain variable region gene (7c.11.2) germline; Ig-Light-Lambda, VLambda |
| 4898 | 18028 | 31016 | 1.11 | 3.0E-46 | Z73660.1 | NT | H. sapiens Ig lambda light chain variable region gene (7c.11.2) germline; Ig-Light-Lambda, VLambda |
| 8949 | 22028 | 35569 | 12.45 | 3.0E-46 | A1831462.1 | EST_HUMAN | w48d04.x1 NCL_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2406160 3' similar to contains THR.B2 THR repetitive element; |
| 9208 | 22284 | 35824 | 0.61 | 3.0E-46 | L08850.1 | NT | Human AD amyloid mRNA, complete cds |
| 8206 | 22284 | 35825 | 0.61 | 3.0E-46 | L08850.1 | NT | Human AD amyloid mRNA, complete cds |
| 11873 | 24861 | 38556 | 1.76 | 3.0E-46 | D31766.1 | NT | Human mRNA for KIAA0061 gene, partial cds |
| 860 | 14037 | 27099 | 12.65 | 2.0E-46 | AA488848.1 | EST_HUMAN | ne08a09.s1 NCL_CGAP_Cc3 Homo sapiens cDNA clone IMAGE:880408 3' similar to contains THR.B2 THR repetitive element; |
| 1558 | 14749 | | 3.78 | 2.0E-46 | AA678216.1 | EST_HUMAN | z27a11.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:431898 3' Homo sapiens Bruton's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44L) and FTP3 (FTP3) genes, complete cds |
| 1671 | 14823 | 27906 | 5.63 | 2.0E-46 | U78027.1 | NT | z159a02.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:726850 5' similar to SW-RSP1_MOUSE Q01730 RSP-1 PROTEIN.; |
| 6089 | 18217 | 31188 | 1.26 | 2.0E-46 | AA399286.1 | EST_HUMAN | Mus musculus sperm tail associated protein (Stap), mRNA |
| 7653 | 20721 | 34197 | 7.1 | 2.0E-46 | 9910569 | NT | 801445137F1 NIH_MGC_85 Homo sapiens cDNA clone IMAGE:3849297 5' |
| 8260 | 21342 | | 1.29 | 2.0E-46 | BE869161.1 | EST_HUMAN | Homo sapiens small acidic protein (IMAGE145052), mRNA |
| 11524 | 24580 | | 1.82 | 2.0E-46 | 7857233 | NT | 601765225F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3997328 5' |
| 12284 | 26040 | | 1.4 | 2.0E-46 | BF028854.1 | EST_HUMAN | y32a01.r1 Soares_fetal_liver_spleen_1NFLS Homo sapiens cDNA clone IMAGE:206977 5' |
| 12555 | 25931 | | 1.57 | 2.0E-46 | H48391.1 | EST_HUMAN | z184f12.r1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:428016 5' |
| 12596 | 26401 | | 3.31 | 2.0E-46 | AA001788.1 | EST_HUMAN | xq78h03.x1 NCL_CGAP_Lu34 Homo sapiens cDNA clone IMAGE:2756789 3' |
| 12934 | 25923 | 31864 | 4.28 | 2.0E-46 | AW277214.1 | EST_HUMAN | Homo sapiens cell division cycle 10 (homologous to CDC10 of S. cerevisiae) (CDC10) mRNA |
| 1261 | 14418 | 27483 | 4.31 | 1.0E-46 | 4502894 | NT | EST390825 IMAGE resequences, MAGP Homo sapiens cDNA |
| 2356 | 15487 | 28619 | 4.88 | 1.0E-46 | AW978518.1 | EST_HUMAN | |

Page 304 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 2473 | 15500 | 28725 | 3.53 | 1.0E-46 | H97330.1 | EST_HUMAN | EST486095 WATM1 Homo sapiens cDNA clone 486095 |
| 3321 | 16494 | 29511 | 2.12 | 1.0E-46 | AA631012.1 | EST_HUMAN | np78802.s1 NCI_CGAP_P12 Homo sapiens cDNA clone IMAGE:1132395 similar to gb:X76717 H.sapiens |
| 4895 | 18124 | | 3.13 | 1.0E-46 | AB023197.1 | NT | MT-11 mRNA. (HUMAN); |
| 5817 | 18007 | 32313 | 5.89 | 1.0E-46 | BF194707.1 | EST_HUMAN | Homo sapiens mRNA for KIAA0980 protein, partial cds |
| 6098 | 25818 | 32809 | 5.34 | 1.0E-46 | 8923762 | NT | 7082501.x1 NCI_CGAP_Ov18 Homo sapiens cDNA clone IMAGE:3943705 3' |
| 6098 | 25818 | 32810 | 5.34 | 1.0E-46 | 8923762 | NT | Homo sapiens centaurin-alpha 2 protein (HSA272165), mRNA |
| | | | | | | | Homo sapiens centaurin-alpha 2 protein (HSA272165), mRNA |
| | | | | | | | 7448607.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3567862 3' similar to contains element |
| | | | | | | | MER22 repetitive element; |
| 6746 | 18602 | 33295 | 0.64 | 1.0E-46 | BF198247.1 | EST_HUMAN | 7082501.x1 NCI_CGAP_Ov18 Homo sapiens cDNA clone IMAGE:3943705 3' |
| 11102 | 19007 | 32313 | 3.72 | 1.0E-46 | BF194707.1 | EST_HUMAN | Homo sapiens CTL2 gene |
| 11410 | 24471 | 38136 | 1.61 | 1.0E-46 | AJ245821.1 | NT | |
| 12923 | 26233 | 32105 | 1.39 | 1.0E-46 | BF531102.1 | EST_HUMAN | 602072284F1 NCI_CGAP_Bm67 Homo sapiens cDNA clone IMAGE:4216398 5' |
| 12923 | 26233 | 32106 | 1.39 | 1.0E-46 | BF531102.1 | EST_HUMAN | 602072284F1 NCI_CGAP_Bm67 Homo sapiens cDNA clone IMAGE:4216398 5' |
| 13176 | 25764 | | 1.99 | 1.0E-46 | AV716377.1 | EST_HUMAN | AV716377 DCB Homo sapiens cDNA clone DCBALE03 5' |
| 787 | 13866 | | 3.7 | 9.0E-47 | AJ271735.1 | NT | Homo sapiens Xq pseudautosomal region; segment 1/2 |
| | | | | | | | h93e04.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3009634 3' similar to TR:O76703 O76703 |
| 6047 | 18175 | 31152 | 3.05 | 9.0E-47 | AW770928.1 | EST_HUMAN | HYPOTHETICAL 12.4 KD PROTEIN; |
| 6806 | 16672 | 33039 | 0.86 | 9.0E-47 | 11425439 | NT | Homo sapiens zinc finger protein ZNF286 (ZNF286), mRNA |
| | | | | | | | Homo sapiens similar to aldo-keto reductase family 1, member B1 (aldose reductase) (H. sapiens) |
| 11388 | 24449 | 38110 | 1.4 | 9.0E-47 | 11432209 | NT | (LOC330893), mRNA |
| 12874 | 28027 | 31675 | 1.84 | 9.0E-47 | 11417960 | NT | Homo sapiens SEC14 (S. cerevisiae)-like 2 (SEC14L2), mRNA |
| 1851 | 14997 | 28100 | 32.2 | 8.0E-47 | Y18536.1 | NT | Homo sapiens HLA-C gene, exon 5, individual 19323 |
| 1851 | 14997 | 28101 | 32.2 | 8.0E-47 | Y18536.1 | NT | Homo sapiens HLA-C gene, exon 5, individual 19323 |
| | | | | | | | |
| 2781 | 15897 | 28007 | 1.5 | 8.0E-47 | 5453955 | NT | Homo sapiens protein phosphatase 2, regulatory subunit B (B56), epsilon isoform (PPP2R5E) mRNA |
| 3089 | 18265 | 29283 | 2.04 | 8.0E-47 | AJ228043.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22, segment 3/3 |
| 3715 | 16876 | 29881 | 0.77 | 8.0E-47 | AB041928.1 | NT | Homo sapiens mRNA for GSK family kinase MINK-2, complete cds |
| 3715 | 16876 | 29882 | 0.77 | 8.0E-47 | AB041928.1 | NT | Homo sapiens mRNA for GSK family kinase MINK-2, complete cds |
| 12862 | 25922 | | 1.99 | 7.0E-47 | AV683284.1 | EST_HUMAN | AV683284 GKG Homo sapiens cDNA clone GKCASH11 5' |
| 2613 | 15737 | 28851 | 3.04 | 6.0E-47 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 8890 | 21969 | 35505 | 0.52 | 6.0E-47 | U77054.1 | EST_HUMAN | HSU77054 Human Homo sapiens cDNA clone N7 |
| 9478 | 22633 | 36097 | 6.83 | 6.0E-47 | AI695189.1 | EST_HUMAN | ts28802.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2288659 3' |
| 8913 | 22953 | 36538 | 0.69 | 6.0E-47 | AB042824.1 | NT | Homo sapiens RECQL5 beta mRNA for DNA helicase recQ5 beta, complete cds |
| 8913 | 22953 | 36539 | 0.69 | 6.0E-47 | AB042824.1 | NT | Homo sapiens RECQL5 beta mRNA for DNA helicase recQ5 beta, complete cds |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6707 | 19865 | 33255 | 5.73 | 5.0E-47 | 11423872 | NT | Homo sapiens CDC37 (cell division cycle 37, S. cerevisiae, homolog) (CDC37), mRNA |
| 11036 | 24114 | | 5.58 | 5.0E-47 | M78590.1 | EST_HUMAN | EST10738 Fetal brain, Strategene (cat#936206) Homo sapiens cDNA clone HFBCE07 |
| 1432 | 14585 | 27630 | 7.03 | 4.0E-47 | 4557556 | NT | Homo sapiens E1A binding protein p300 (EP300) mRNA |
| 6971 | 20199 | 33825 | 0.82 | 4.0E-47 | BE038896.1 | EST_HUMAN | MR4-TN0108-280800-201-c14 TN0108 Homo sapiens cDNA |
| 8677 | 21757 | 35292 | 2.22 | 4.0E-47 | BE016493.1 | EST_HUMAN | 601280486F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3622437 5' |
| 8677 | 21757 | 35293 | 2.22 | 4.0E-47 | BE016493.1 | EST_HUMAN | 601280486F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3622437 5' |
| 8818 | 21897 | 35436 | 0.83 | 4.0E-47 | AW993777.1 | EST_HUMAN | RC3-BN0034-220300-016-705 BN0034 Homo sapiens cDNA |
| 11936 | 24922 | | 1.98 | 4.0E-47 | AW615508.1 | EST_HUMAN | Q66807.x1 NCI_CGAP_Lym12 Homo sapiens cDNA clone IMAGE:2848597 3' similar to SW:INT6_MOUSE |
| 558 | 13751 | 28778 | 2.08 | 3.0E-47 | BE007634.1 | EST_HUMAN | Q94262 VIRAL INTEGRATION SITE PROTEIN INT-6. [1]; |
| 558 | 13751 | 28779 | 2.09 | 3.0E-47 | BE007634.1 | EST_HUMAN | 601487639F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3899721 5' |
| 841 | 14019 | 27075 | 3.99 | 3.0E-47 | N57483.1 | EST_HUMAN | 601487639F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3899721 5' |
| 968 | 14141 | 27202 | 10.04 | 3.0E-47 | AL163284.2 | NT | y54b04.x1 Soares_multiple_sclerosis_2NblMSP Homo sapiens cDNA clone IMAGE:277327 3' |
| 3378 | 16548 | 29562 | 0.97 | 3.0E-47 | 4504116 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 4073 | 17229 | | 6.61 | 3.0E-47 | U93181.1 | NT | Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA |
| 4482 | 17622 | 30603 | 1.14 | 3.0E-47 | M12959.1 | NT | Homo sapiens nuclear dual-specificity phosphatase (SBF1) mRNA, partial cds |
| 8136 | 19315 | 32854 | 4.69 | 3.0E-47 | AW408900.1 | EST_HUMAN | Human T-cell receptor active alpha-chain mRNA from JM cell line, complete cds |
| 8136 | 19316 | 32855 | 4.69 | 3.0E-47 | AW408900.1 | EST_HUMAN | U1-HF-BMD-adv-d-07-0-U1r1 NIH_MGC_38 Homo sapiens cDNA clone IMAGE:3063205 5' |
| 8894 | 19852 | | 1.71 | 3.0E-47 | A1222413.1 | EST_HUMAN | U1-HF-BMD-adv-d-07-0-U1r1 NIH_MGC_38 Homo sapiens cDNA clone IMAGE:3063205 5' |
| 7540 | 20613 | 34089 | 0.89 | 3.0E-47 | A1819765.1 | EST_HUMAN | q104e07.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1843716 3' |
| 7540 | 20613 | 34090 | 0.88 | 3.0E-47 | A1819765.1 | EST_HUMAN | w11h08.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2402559 3' |
| 9033 | 22112 | 35654 | 0.77 | 3.0E-47 | AW963796.1 | EST_HUMAN | w11h08.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2402559 3' |
| 9033 | 22112 | 35655 | 0.77 | 3.0E-47 | AW963796.1 | EST_HUMAN | EST375869 MAGC resequences, MAGH Homo sapiens cDNA |
| 152 | 13377 | 28409 | 1.21 | 2.0E-47 | 4505318 | NT | EST375869 MAGC resequences, MAGH Homo sapiens cDNA |
| 990 | 14162 | 27221 | 2.45 | 2.0E-47 | AL163209.2 | NT | Homo sapiens myosin phosphatase, target subunit 2 (MYPT2), mRNA |
| 990 | 14162 | 27222 | 2.45 | 2.0E-47 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 1998 | 14751 | 27859 | 1.61 | 2.0E-47 | A166279.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C009 |
| 1623 | 14775 | | 4.49 | 2.0E-47 | AA524514.1 | EST_HUMAN | wg98b02.x1 NCI_CGAP_GC8 Homo sapiens cDNA clone IMAGE:2479851 3' |
| 1712 | 14863 | 27952 | 1.61 | 2.0E-47 | 4504868 | NT | Homo sapiens KIAA0426 gene product (KIAA0426), mRNA |
| 4467 | 17307 | 30585 | 1.67 | 2.0E-47 | AA559592.1 | EST_HUMAN | hg43h12.x1 NCI_CGAP_C68 Homo sapiens cDNA clone IMAGE:937607 3' |
| 4903 | 17643 | 30628 | 1.67 | 2.0E-47 | AA559592.1 | EST_HUMAN | Homo sapiens ring finger protein (C3HC4 type) 8 (RNF8), mRNA |
| 4503 | 17643 | 30629 | 1.67 | 2.0E-47 | AA559592.1 | EST_HUMAN | n23g07.s1 NCI_CGAP_P1 Homo sapiens cDNA clone IMAGE:914652 |
| 4628 | 17764 | 30748 | 2.14 | 2.0E-47 | 5174648 | NT | n23g07.s1 NCI_CGAP_P1 Homo sapiens cDNA clone IMAGE:914652 |
| 4833 | 18063 | 31046 | 1.25 | 2.0E-47 | AW865168.1 | EST_HUMAN | Homo sapiens Rev/Rex activation domain binding protein-related (RAB-R) mRNA |
| | | | | | | | EST377239 MAGC resequences, MAGI Homo sapiens cDNA |

Page 306 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 5245 | 18366 | | 0.71 | 2.0E-47 | AI041126.1 | EST_HUMAN | ov61h03.x1 Scores_testis_NH-T Homo sapiens cDNA clone IMAGE:1641845 3' |
| 5904 | 19093 | 32407 | 0.8 | 2.0E-47 | AF073921.1 | NT | Homo sapiens regulator of G-protein signalling 6 variant form (RGS6) mRNA, complete cds |
| 6097 | 19276 | 32607 | 1.32 | 2.0E-47 | BE778476.1 | EST_HUMAN | 601463832F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3867487 5' |
| 6097 | 19278 | 32608 | 1.32 | 2.0E-47 | BE778476.1 | EST_HUMAN | 601463832F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3867487 5' |
| 7878 | 25854 | | 1.34 | 2.0E-47 | LO9731.1 | NT | Homo sapiens 6-hydroxytryptamine 1D receptor pseudogene with an Alu repeat insertion |
| 8151 | 21233 | 34753 | 1.96 | 2.0E-47 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 8151 | 21233 | 34754 | 1.96 | 2.0E-47 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 8915 | 21894 | 36533 | 1.76 | 2.0E-47 | AF071771.1 | NT | Homo sapiens SPH-binding factor mRNA, partial cds |
| 9890 | 22739 | 36308 | 1.27 | 2.0E-47 | 11526136 | NT | Homo sapiens BTG family, member 3 (BTG3), mRNA |
| 12357 | 26073 | 31653 | 3.36 | 2.0E-47 | R42423.1 | EST_HUMAN | y02a08.a1 Scores infant brain INIB Homo sapiens cDNA clone IMAGE:29966 3' similar to contains OFR repetitive element; |
| 12394 | 26076 | | 1.87 | 2.0E-47 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 1437 | 14580 | 27683 | 5.42 | 1.0E-47 | A133426.1 | EST_HUMAN | q99h03.x1 Scores_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:1631189 3' |
| 3926 | 17085 | 30080 | 1.1 | 1.0E-47 | BE280477.1 | EST_HUMAN | 601155321F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3138893 5' |
| 3926 | 17085 | 30081 | 1.1 | 1.0E-47 | BE280477.1 | EST_HUMAN | 601155321F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3138893 5' |
| 5187 | 18309 | 31275 | 2.4 | 1.0E-47 | AW813806.1 | EST_HUMAN | RC3-ST0197-130400-017402 ST0197 Homo sapiens cDNA |
| 7189 | 20054 | 33464 | 10.78 | 1.0E-47 | AI880886.1 | EST_HUMAN | at19a08.x1 Barstead aorta HPLRB8 Homo sapiens cDNA clone IMAGE:2365589 3' similar to gb:M22895 |
| 8069 | 22148 | | 4.24 | 1.0E-47 | AW684648.1 | EST_HUMAN | RAS-RELATED PROTEIN RAP-1A (HUMAN); |
| 10564 | 23599 | 37205 | 2.26 | 1.0E-47 | L30115.1 | NT | h18a11.x1 Scores_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2978972 3' similar to gb:M26328 KERATIN, TYPE I CYTOSKELETAL 18 (HUMAN); |
| 1843 | 14786 | 27879 | 3.84 | 9.0E-48 | AF223391.1 | NT | Popio hamadryas alcohol dehydrogenase class I (ADH) gene, 5' region |
| 3646 | 16909 | 29823 | 0.73 | 9.0E-48 | BF359947.1 | EST_HUMAN | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 5797 | 18987 | 32280 | 1.1 | 9.0E-48 | BE888198.1 | EST_HUMAN | CM2-MT0100-310700-280-105 MT0100 Homo sapiens cDNA |
| 5797 | 18987 | 32281 | 1.1 | 9.0E-48 | BE888198.1 | EST_HUMAN | 601511714F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913106 5' |
| 6228 | 19401 | 32751 | 0.57 | 9.0E-48 | AI833168.1 | EST_HUMAN | 601511714F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913106 5' |
| 6355 | 19525 | 32882 | 0.71 | 9.0E-48 | AU123240.1 | EST_HUMAN | at75h09.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2377899 3' similar to TR:O60844 |
| 11378 | 24439 | 36098 | 3.06 | 9.0E-48 | BE393813.1 | EST_HUMAN | C60844 HOMOLOG OF RAT ZYMOGEN GRANULE MEMBRANE PROTEIN.; |
| 1279 | 14436 | | 1.79 | 8.0E-48 | 4501800 | NT | AU123240 NT2RM1 Homo sapiens cDNA clone NT2RM1000978 5' |
| 1280 | 14436 | | 1.65 | 8.0E-48 | 4501900 | NT | 601310479F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3632083 5' |
| 3205 | 16380 | 29390 | 5.72 | 8.0E-48 | AW768477.1 | EST_HUMAN | Homo sapiens aminocyclase 1 (ACY1), mRNA |
| | | | | | | | h61b03.x1 NCL_GCAP_Lym12 Homo sapiens cDNA clone IMAGE:3001133 3' similar to gb:X64707 BREAST BASIC CONSERVED PROTEIN 1 (HUMAN); |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 3205 | 16380 | 29391 | 5.72 | 8.0E-48 | AW768477.1 | EST_HUMAN | h61b03.x1 NCI_CGAP_Lym12 Homo sapiens cDNA clone IMAGE:3001133 3' similar to gb-X64707 |
| 4041 | 17197 | 30208 | 0.66 | 8.0E-48 | 4504118 | NT | BREAST BASIC CONSERVED PROTEIN 1 (HUMAN); |
| 503 | 13698 | | 2.68 | 7.0E-48 | AB033035.1 | NT | Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA |
| 504 | 13698 | | 18.69 | 7.0E-49 | AB033035.1 | NT | Homo sapiens mRNA for KIAA1209 protein, partial cds |
| 1527 | 14890 | 27761 | 1.98 | 7.0E-48 | 6912719 | NT | Homo sapiens mRNA for KIAA1209 protein, partial cds |
| 1687 | 14819 | 27602 | 5.39 | 7.0E-48 | 5730038 | NT | Homo sapiens taurine-like kinase 1 (TLK1), mRNA |
| 6985 | 19843 | 33293 | 24.01 | 7.0E-48 | 11418831 | NT | Homo sapiens SET domain and methyltransferase fusion gene (SETMAR) mRNA |
| 12125 | 25105 | 38809 | 2.98 | 7.0E-48 | R19623.1 | EST_HUMAN | Homo sapiens histidinyl-tRNA synthetase (HARS), mRNA |
| 3687 | 16850 | 29838 | 0.88 | 6.0E-48 | A176111.1 | EST_HUMAN | y937b02.r1 Soares Infant brain INIB Homo sapiens cDNA clone IMAGE:34747 5' |
| 6183 | 19359 | 32707 | 0.84 | 6.0E-48 | AB006955.1 | NT | w69103.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2398613 3' |
| 6924 | 20239 | 33674 | 0.93 | 8.0E-48 | 11420995 | NT | Homo sapiens mRNA for ALE-75, complete cds |
| 7628 | 28849 | 34172 | 0.78 | 6.0E-48 | AB046844.1 | NT | Homo sapiens BMX non-receptor tyrosine kinase (BMX), mRNA |
| 7628 | 28849 | 34179 | 0.79 | 6.0E-48 | AB046844.1 | NT | Homo sapiens mRNA for KIAA1624 protein, partial cds |
| 9323 | 22399 | 35953 | 1.57 | 6.0E-48 | AF028618.1 | NT | Homo sapiens putative oncogene protein mRNA, partial cds |
| 9741 | 22808 | 36382 | 1.87 | 6.0E-48 | 11427428 | NT | Homo sapiens hypothetical protein FLJ11006 (FLJ11006), mRNA |
| 9890 | 22630 | 36514 | 2.84 | 6.0E-48 | AA189080.1 | EST_HUMAN | zq45k08.s1 Stratagene hNT neuron (#937233) Homo sapiens cDNA clone IMAGE:632627 3' similar to |
| 3384 | 18465 | 29569 | 1.48 | 6.0E-48 | 4823891 | NT | contains Alu repetitive element; |
| 8774 | 21653 | 35395 | 1.04 | 6.0E-48 | BE084410.1 | EST_HUMAN | Homo sapiens phosphodiesterase 1A, calmodulin-dependent (PDE1A) mRNA |
| 2829 | 19843 | 29053 | 1.02 | 4.0E-48 | R45715.1 | EST_HUMAN | RC4-BT0311-141189-011-106 BT0311 Homo sapiens cDNA |
| 11200 | 24269 | 37905 | 3.11 | 4.0E-48 | A1620420.1 | EST_HUMAN | H6140-f Adult heart, Clontech Homo sapiens cDNA clone a140-f |
| 12050 | 25031 | 39737 | 1.76 | 4.0E-48 | BE084410.1 | EST_HUMAN | tu47a02.x1 NCI_CGAP_P28 Homo sapiens cDNA clone IMAGE:2254154 3' |
| 1416 | 14570 | 27643 | 1.91 | 3.0E-48 | AV690964.1 | EST_HUMAN | RC4-BT0311-141189-011-106 BT0311 Homo sapiens cDNA |
| 2032 | 15173 | 28282 | 31.81 | 3.0E-48 | 4885170 | NT | AV690964 GKC Homo sapiens cDNA clone GKCDRE12 5' |
| 2032 | 15173 | 28283 | 31.81 | 3.0E-48 | 4885170 | NT | Homo sapiens chromosome X open reading frame 6 (CXORF6) mRNA |
| 3505 | 16672 | 29682 | 0.93 | 3.0E-48 | AF172453.1 | NT | Homo sapiens opid growth factor receptor mRNA, complete cds |
| 3721 | 16882 | 29888 | 0.9 | 3.0E-48 | AW684531.1 | EST_HUMAN | h14b12.x1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2872255 3' similar to SW:DCRB_HUMAN |
| 4362 | 17505 | | 0.63 | 3.0E-48 | AA009541.1 | EST_HUMAN | P56555 DOWN SYNDROME CRITICAL REGION PROTEIN B.1 |
| 6015 | 19199 | 32510 | 2.08 | 3.0E-48 | BE084671.1 | EST_HUMAN | Z04g03.r1 Soares fetal liver, spleen, 1NFLS_S1 Homo sapiens cDNA clone IMAGE:429844 5' |
| 7159 | 20292 | 33735 | 1.07 | 3.0E-48 | AF037813.1 | NT | MR4-BT0657-060400-201-a10 BT0657 Homo sapiens cDNA |
| | | | | | | | Human endogenous retrovirus HERV-P-T47D |
| 8885 | 21668 | | 3.73 | 3.0E-48 | AA659930.1 | EST_HUMAN | m03f05.s1 NCI_CGAP_P22 Homo sapiens cDNA clone IMAGE:1218137 3' similar to contains PTR5.b1 |
| | | | | | | | PTR5 repetitive element; |

Page 308 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 11114 | 24186 | 37818 | 8.1 | 3.0E-48 | BF514170.1 | EST_HUMAN | UHH-BW1-anti-a-10-Q-UJ.s1 NCL CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3082287 3' |
| 6 | 13244 | 26245 | 0.66 | 2.0E-48 | AA465007.1 | EST_HUMAN | 2x80-c03.r1 Soares ovary tumor N6HOT Homo sapiens cDNA clone IMAGE:910052 5' |
| 48 | 13285 | 26234 | 1.7 | 2.0E-48 | AA631040.1 | EST_HUMAN | tmf67 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone OR17-28 |
| 4654 | 17790 | 30774 | 0.99 | 2.0E-48 | BE246063.1 | EST_HUMAN | TCBAP1D3842 Pediatric pre-B cell acute lymphoblastic leukemia Baylax-HGSC project-TCBA Homo sapiens cDNA clone TCBAP3842 |
| 5935 | 19121 | 32433 | 0.84 | 2.0E-48 | AA613171.1 | EST_HUMAN | no18g01.s1 NCL CGAP_Phet1 Homo sapiens cDNA clone IMAGE:1101072 3' |
| 5935 | 19121 | 32434 | 0.84 | 2.0E-48 | AA613171.1 | EST_HUMAN | no18g01.s1 NCL CGAP_Phet1 Homo sapiens cDNA clone IMAGE:1101072 3' |
| 7688 | 20763 | 34236 | 3.89 | 2.0E-48 | AB040334.1 | NT | Homo sapiens mRNA for KIAA1601 protein, partial cds |
| 7688 | 20763 | 34237 | 3.99 | 2.0E-48 | AB040334.1 | NT | Homo sapiens mRNA for KIAA1601 protein, partial cds |
| 7703 | 20768 | 34253 | 3.54 | 2.0E-48 | 11498238 | NT | Homo sapiens v-rel avian reticuloendotheliosis viral oncogene homolog A (nuclear factor of kappa light polypeptide gene enhancer in B-cells 3 (p65) (REL)) mRNA |
| 8550 | 21631 | 35168 | 1.13 | 2.0E-48 | AV743451.1 | EST_HUMAN | AV743451 CB Homo sapiens cDNA clone CBGCGG10 5' |
| 12109 | 25089 | 27323 | 1.36 | 2.0E-48 | AW261799.1 | EST_HUMAN | UJ-H-B12-agi-b-11-Q-UJ.s1 NCL CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2724453 3' |
| 12320 | 13244 | 26245 | 2.88 | 2.0E-48 | AA465007.1 | EST_HUMAN | 2x80-c03.r1 Soares ovary tumor N6HOT Homo sapiens cDNA clone IMAGE:810052 5' |
| 12674 | 25990 | 31771 | 1.25 | 2.0E-48 | BE737154.1 | EST_HUMAN | 601305084F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3639782 5' |
| 57 | 13285 | 26311 | 2.33 | 1.0E-48 | 7709534 | NT | Homo sapiens cisplatin resistance-associated overexpressed protein (LOC51747), mRNA |
| 898 | 14072 | 27137 | 4.87 | 1.0E-48 | 4502168 | NT | Homo sapiens amyloid beta (A4) precursor protein (precursor nexin-II, Alzheimer disease) (APP), mRNA |
| 1101 | 14266 | 27323 | 1.52 | 1.0E-48 | 7657430 | NT | Homo sapiens EBNA-2 co-activator (100kD) (p100), mRNA |
| 1101 | 14266 | 27324 | 1.52 | 1.0E-48 | 7657430 | NT | Homo sapiens EBNA-2 co-activator (100kD) (p100), mRNA |
| 1324 | 14481 | 27346 | 4.01 | 1.0E-48 | 5032032 | NT | Homo sapiens RNA binding motif protein 8 (RBM8) mRNA |
| 1968 | 15111 | 28212 | 13.8 | 1.0E-48 | AL163302.2 | NT | Homo sapiens chromosome 21 segment HS21C102 |
| 3577 | 16742 | 29759 | 0.94 | 1.0E-48 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 5240 | 18382 | 31330 | 1.1 | 1.0E-48 | M10976.1 | NT | Human endogenous retroviral DNA (4-1), complete retroviral segment |
| 6417 | 19586 | 32948 | 1.24 | 1.0E-48 | A1889077.1 | EST_HUMAN | id17c01.x1 NCL CGAP_Co18 Homo sapiens cDNA clone IMAGE:2075904 3' similar to TR:O14588 O14588 |
| 6417 | 19586 | 32949 | 1.24 | 1.0E-48 | A1889077.1 | EST_HUMAN | id17c01.x1 NCL CGAP_Co18 Homo sapiens cDNA clone IMAGE:2075904 3' similar to TR:O14588 O14588 |
| 6628 | 19788 | 33274 | 0.87 | 1.0E-48 | Y18000.1 | NT | Homo sapiens NF2 gene |
| 6727 | 19883 | 33274 | 0.59 | 1.0E-48 | AB028994.1 | NT | Homo sapiens mRNA for KIAA1071 protein, partial cds |
| 6727 | 19883 | 33275 | 0.59 | 1.0E-48 | AB028994.1 | NT | Homo sapiens mRNA for KIAA1071 protein, partial cds |
| 7407 | 20485 | 33954 | 2.21 | 1.0E-48 | 47555137 | NT | Homo sapiens huntingtin (Huntington disease) (HD) mRNA |
| 9031 | 22110 | 35651 | 0.85 | 1.0E-48 | 4758695 | NT | Homo sapiens mitogen-activated protein kinase kinase 13 (MAP3K13), mRNA |
| 9031 | 22110 | 35652 | 0.65 | 1.0E-48 | 4768695 | NT | Homo sapiens mitogen-activated protein kinase kinase 13 (MAP3K13), mRNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF-SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 9414 | 22488 | 36053 | 0.89 | 1.0E-48 | 4502838 | NT | Homo sapiens Chediak-Higashi syndrome 1 (CHS1) mRNA |
| 9468 | 22525 | 36089 | 6.76 | 1.0E-48 | AB033071.1 | NT | Homo sapiens mRNA for KIAA1245 protein, partial cds |
| 9781 | 22821 | 36399 | 4.74 | 1.0E-48 | BF304683.1 | EST_HUMAN | 601880306F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4122119 6' |
| 10581 | 23616 | 37221 | 4.23 | 1.0E-48 | 11429808 | NT | Homo sapiens B cell linker protein (SLP65), mRNA |
| 10581 | 23616 | 37222 | 4.23 | 1.0E-48 | 11429808 | NT | Homo sapiens B cell linker protein (SLP65), mRNA |
| 12282 | 26014 | | 1.41 | 1.0E-48 | W28785.1 | EST_HUMAN | 1546 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA |
| 2064 | 15204 | 28320 | 0.97 | 8.0E-49 | AB028497.1 | NT | Mus musculus MysPDZ mRNA for myosin containing PDZ domain, complete cds |
| 6178 | 19354 | 32701 | 3.07 | 8.0E-49 | 10048417 | NT | Mus musculus T-box 20 (Tbx20), mRNA |
| 6178 | 19354 | 32702 | 3.07 | 8.0E-49 | 10048417 | NT | Mus musculus T-box 20 (Tbx20), mRNA |
| 8491 | 21572 | 35109 | 3.09 | 8.0E-49 | U23850.1 | NT | Human Inositol 1,4,5 trisphosphate receptor type 1 mRNA, partial cds |
| 10194 | 23231 | 36822 | 0.93 | 8.0E-49 | AB008881.1 | NT | Homo sapiens gene for activin receptor type IIB, complete cds |
| 11096 | 24109 | 37604 | 3.65 | 8.0E-49 | A623722.1 | EST_HUMAN | 1538412.x1 NCI_CGAP_U4 Homo sapiens cDNA clone IMAGE:2230871 3' similar to contains Alu repetitive element; contains element P1TR5 repetitive element |
| 12097 | 25077 | 38765 | 2.08 | 8.0E-49 | AA872183.1 | EST_HUMAN | cb78a08.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1837462 3' |
| 142 | 13602 | 26637 | 1.21 | 7.0E-49 | 5726990 | NT | Homo sapiens proteasome (prosome, macropain) 26S subunit, ATPase, 4 (PSMCA4) mRNA |
| 142 | 13602 | 26638 | 1.21 | 7.0E-49 | 5726990 | NT | Homo sapiens proteasome (prosome, macropain) 26S subunit, ATPase, 4 (PSMCA4) mRNA |
| 405 | 13602 | 26637 | 1.62 | 7.0E-49 | 5726990 | NT | Homo sapiens proteasome (prosome, macropain) 26S subunit, ATPase, 4 (PSMCA4) mRNA |
| 405 | 13602 | 26638 | 1.62 | 7.0E-49 | 5726990 | NT | Homo sapiens proteasome (prosome, macropain) 26S subunit, ATPase, 4 (PSMCA4) mRNA |
| 406 | 13602 | 26637 | 2.25 | 7.0E-49 | 5726990 | NT | Homo sapiens proteasome (prosome, macropain) 26S subunit, ATPase, 4 (PSMCA4) mRNA |
| 406 | 13602 | 26638 | 2.25 | 7.0E-49 | 5726990 | NT | Homo sapiens proteasome (prosome, macropain) 26S subunit, ATPase, 4 (PSMCA4) mRNA |
| 1248 | 14407 | 27469 | 4.37 | 7.0E-49 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21O084 |
| 4772 | 17607 | 30890 | 0.9 | 7.0E-49 | O60811 | SWISSPROT | HYPOTHETICAL PROTEIN DJ845024.3 |
| | | | | | | | wf25h04.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2356663 3' similar to TR:O54923 |
| 5576 | 18771 | 31815 | 2.33 | 7.0E-49 | A1807191.1 | EST_HUMAN | O54923 RSEC15.1 |
| 6696 | 18781 | 31828 | 1.3 | 7.0E-49 | AL120837.1 | EST_HUMAN | DKFZp762C033.s1 762 (synonym: hmel2) Homo sapiens cDNA clone DKFZp762C033 3' |
| 5926 | 18771 | 31815 | 0.79 | 7.0E-49 | A1807191.1 | EST_HUMAN | wf25h04.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2356663 3' similar to TR:O54923 |
| | | | | | | | O54923 RSEC15.1 |
| 202 | 13425 | 26456 | 20.33 | 6.0E-49 | AW751740.1 | EST_HUMAN | b655g05.x1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2900504 3' similar to gb.X17208 40S |
| 4231 | 17378 | 30367 | 0.64 | 6.0E-49 | AL182091.1 | EST_HUMAN | RIBOSOMAL PROTEIN S4 (HUMAN); gb.M20632 Mouse LLRep3 protein mRNA from a repetitive element, complete (MOUSE); |
| 5954 | 19140 | 32456 | 0.64 | 6.0E-49 | AW511225.1 | EST_HUMAN | DKFZp761A138.s1 761 (synonym: ham2) Homo sapiens cDNA clone DKFZp761A138 3' |
| 6572 | 19734 | 33113 | 1.27 | 6.0E-49 | AU140742.1 | EST_HUMAN | hcd44e02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2912378 3' similar to TR:O66636 |
| | | | | | | | O65838 CAMP-REGULATED GUANINE NUCLEOTIDE EXCHANGE FACTOR II.; |
| | | | | | | | AU140742 PLAGE4 Homo sapiens cDNA clone PLACE4000148 6' |

Page 310 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 11557 | 24812 | 38281 | 3.39 | 6.0E-49 | AW452218.1 | EST_HUMAN | U1-H-B13-alc-a-05-0-UI.s1 NCL_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:3068048 3' |
| 11961 | 24946 | 38650 | 2.48 | 6.0E-49 | AA386558.1 | EST_HUMAN | EST177526 Pancreas tumor III Homo sapiens cDNA 5' end |
| 11961 | 24946 | 38651 | 2.48 | 6.0E-49 | AA386558.1 | EST_HUMAN | EST177525 Pancreas tumor III Homo sapiens cDNA 5' end |
| 12670 | 25897 | | 10.54 | 6.0E-49 | AA707687.1 | EST_HUMAN | Z29c018.s1 Soares_fetal_liver_spleen_infls_S1 Homo sapiens cDNA clone IMAGE:451684 3' |
| 730 | 13912 | 26851 | 5.84 | 5.0E-49 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 730 | 13912 | 26952 | 5.84 | 5.0E-49 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 1936 | 14983 | 28082 | 10.18 | 6.0E-49 | AA172121.1 | EST_HUMAN | zp29c07.r1 Stratiogene neuroepithelium (#937231) Homo sapiens cDNA clone IMAGE:810860 5' similar to TR:G233226 G233226 RTVL-H PROTEIN, contains LTR7.3 LTR7 LTR7 repetitive element; |
| 2808 | 15922 | 28032 | 7.1 | 5.0E-49 | U17714.1 | NT | Homo sapiens putative tumor suppressor ST13 (ST13) mRNA, complete cds |
| 3346 | 16519 | 29533 | 7.59 | 5.0E-49 | 11439355 | NT | Homo sapiens olivular to ribosomal protein S27 (metalloproteinin 1) (H. sapiens) (LOC63362), mRNA |
| 538 | 13731 | 28754 | 28.39 | 4.0E-49 | AW189533.1 | EST_HUMAN | X08801.1 NCL_CGAP_U14 Homo sapiens cDNA clone IMAGE:2876503 3' similar to WP:B0350.2B CE08703: |
| 7395 | 20473 | 33939 | 0.96 | 4.0E-49 | Z26534.2 | NT | Homo sapiens mRNA for ankryrin B (440 kDa) |
| 7395 | 20473 | 33940 | 0.98 | 4.0E-49 | Z26634.2 | NT | Homo sapiens mRNA for ankryrin B (440 kDa) |
| 7422 | 20489 | 33970 | 0.68 | 4.0E-49 | 11526737 | NT | Homo sapiens UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase 8 (GalNAc-T8) (GALNT8), mRNA |
| 7422 | 20499 | 33971 | 0.68 | 4.0E-49 | 11526737 | NT | Homo sapiens UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase 8 (GalNAc-T8) (GALNT8), mRNA |
| 7892 | 21042 | 34554 | 0.69 | 4.0E-49 | 7862209 | NT | Homo sapiens KIAA0623 gene product (KIAA0623), mRNA |
| 9065 | 22144 | 35680 | 0.47 | 4.0E-49 | 11425374 | NT | Homo sapiens copine III (CPNE3), mRNA |
| 9065 | 22144 | 35681 | 0.47 | 4.0E-49 | 11425374 | NT | Homo sapiens copine III (CPNE3), mRNA |
| 12514 | 26145 | | 2.74 | 4.0E-49 | AA210788.1 | EST_HUMAN | Z60105.r1 NCL_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:682877 5' |
| 12615 | 25413 | | 2.93 | 4.0E-49 | AF240788.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 574 | 13768 | 28789 | 0.91 | 3.0E-49 | X68968.1 | NT | H. sapiens mRNA for acetyl-CoA carboxylase |
| 2713 | 15831 | | 2.73 | 3.0E-49 | AA016131.1 | EST_HUMAN | z631c05.r1 Soares retina N2b4-HR Homo sapiens cDNA clone IMAGE:360584 5' similar to contains L1.13 L1 repetitive element; |
| 5098 | 18228 | 31108 | 2.68 | 3.0E-49 | U46999.1 | NT | Human type IV collagen (COL4A6) gene, exon 40 |
| 7577 | 20649 | 34127 | 0.83 | 3.0E-49 | H39479.1 | EST_HUMAN | EST25612 WATM1 Homo sapiens cDNA clone 25e12 |
| 11582 | 24636 | 38316 | 1.41 | 3.0E-49 | AA337561.1 | EST_HUMAN | EST142572 Endometrial tumor Homo sapiens cDNA 5' end |
| 678 | 13884 | | 1.93 | 2.0E-49 | BE165980.1 | EST_HUMAN | MR3-HT0487-150200-113-601 HT0487 Homo sapiens cDNA |
| 3294 | 16468 | 28487 | 1.15 | 2.0E-49 | N26448.1 | EST_HUMAN | YX23408.r1 Soares melanocyte 2NH-HM Homo sapiens cDNA clone IMAGE:282571 5' |

Page 311 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 3659 | 16822 | 29832 | 0.86 | 2.0E-49 | AF026584.1 | NT | Homo sapiens RNA binding protein II (RBMII) gene, complete cds |
| 6876 | 20027 | 33437 | 1.2 | 2.0E-49 | AV717938.1 | EST_HUMAN | AV717938 DCB Homo sapiens cDNA clone DCBALB01.5' |
| 8291 | 21373 | | 1.87 | 2.0E-49 | M86033.1 | EST_HUMAN | EST025588 Fetal brain, Stragelane (cat#930208) Homo sapiens cDNA clone HFBOY60 |
| 12626 | 26008 | | 2.09 | 2.0E-49 | AF163984.1 | NT | Homo sapiens SNCA Isoform (SNCA) gene, complete cds, alternatively spliced |
| 922 | 14097 | | 9.1 | 1.0E-49 | BF035327.1 | EST_HUMAN | 6014658331F1 NIH_MGC_88 Homo sapiens cDNA clone IMAGE:38620865 5' |
| 1584 | 14736 | 27816 | 73.58 | 1.0E-49 | 4557887 | NT | Homo sapiens keratin 18 (KRT18) mRNA |
| 1844 | 14990 | 28091 | 2.93 | 1.0E-49 | BE255216.1 | EST_HUMAN | 601115793F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3366273 5' |
| 6476 | 18674 | 31688 | 4.68 | 1.0E-49 | BF131007.1 | EST_HUMAN | 601820036F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4052052 5' |
| 6202 | 19377 | 32728 | 0.85 | 1.0E-49 | H16291.1 | EST_HUMAN | Yr48h04.r1 Scores adult brain N2b5rH55Y Homo sapiens cDNA clone IMAGE:171703 5' similar to SP-CBG1_HUMAN Q08447 GUANINE NUCLEOTIDE-BINDING PROTEIN G(T) GAMMA-1 SUBUNIT ; |
| 8208 | 19383 | 32733 | 1.09 | 1.0E-49 | AW904840.1 | EST_HUMAN | EST376713 IMAGE resequencing, MAGH Homo sapiens cDNA |
| 7372 | 20451 | 33916 | 2.78 | 1.0E-49 | BE398110.1 | EST_HUMAN | 601290330F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3620863 5' |
| 7372 | 20451 | 33916 | 2.78 | 1.0E-49 | BE398110.1 | EST_HUMAN | 601290330F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3620863 5' |
| 7463 | 20530 | 34003 | 2.09 | 1.0E-49 | N25884.1 | EST_HUMAN | yw78g12.s1 Scores placenta_8b6dweels_2N6HP8b9W Homo sapiens cDNA clone IMAGE:268406 3' similar to gb:X65873 KINESIN HEAVY CHAIN (HUMAN); |
| 7463 | 20530 | 34004 | 2.09 | 1.0E-49 | N25884.1 | EST_HUMAN | yw78g12.s1 Scores placenta_8b6dweels_2N6HP8b9W Homo sapiens cDNA clone IMAGE:268406 3' similar to gb:X65873 KINESIN HEAVY CHAIN (HUMAN); |
| 8874 | 21953 | | 0.71 | 1.0E-49 | 9994184 | NT | Homo sapiens RNA binding motif protein 7 (LOC51120), mRNA |
| 8183 | 22271 | 36909 | 1.48 | 1.0E-49 | BE409340.1 | EST_HUMAN | 601300992F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3836388 5' |
| 10331 | 23366 | 36976 | 1.23 | 1.0E-49 | AL043129.2 | EST_HUMAN | DKFZp434D2423 .1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434D2423 5' |
| 11304 | 24369 | 38010 | 1.32 | 1.0E-49 | AV751477.1 | EST_HUMAN | AV751477 NPd Homo sapiens cDNA clone NPDAWED04 5' |
| 11690 | 24643 | 38326 | 2.91 | 1.0E-49 | 11427366 | NT | Homo sapiens brefeldin A-inhibited guanine nucleotide-exchange protein 1 (BIG1), mRNA |
| 12148 | 25119 | | 1.26 | 1.0E-49 | BE169343.1 | EST_HUMAN | MRO-HT0407-010200-006-f02 HT0407 Homo sapiens cDNA |
| 12508 | 25349 | | 1.82 | 1.0E-49 | 11418322 | NT | Homo sapiens cadherin EGF LAG seven-pass G-type receptor 1 (GELSRL), mRNA |
| 6109 | 18237 | | 0.92 | 9.0E-50 | AF101475.1 | NT | Homo sapiens glycine N-methyltransferase (GNMT) gene, complete cds |
| 6934 | 26215 | | 0.63 | 9.0E-50 | BE298758.1 | EST_HUMAN | 601176250F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531588 5' |
| 174 | 13398 | 26426 | 4.18 | 8.0E-50 | AL103202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 737 | 13919 | 26959 | 1.92 | 8.0E-50 | X95097.2 | NT | Homo sapiens mRNA for VIP receptor 2 |
| 737 | 13919 | 26960 | 1.92 | 8.0E-50 | X95097.2 | NT | Homo sapiens mRNA for VIP receptor 2 |
| 1803 | 14952 | 28043 | 4.32 | 8.0E-50 | 4601890 | NT | Homo sapiens actinin, alpha 1 (ACTN1), mRNA |
| 2552 | 15677 | 28800 | 1.05 | 8.0E-50 | 7706394 | NT | Homo sapiens p47 (LOC51674), mRNA |
| 2552 | 15677 | 28801 | 1.05 | 8.0E-50 | 7706394 | NT | Homo sapiens p47 (LOC51674), mRNA |
| 2764 | 15679 | 28988 | 2.42 | 8.0E-50 | 4826658 | NT | Homo sapiens capping protein (actin filament) muscle Z-line, beta (CAPZB), mRNA |
| 2891 | 15160 | | 2.67 | 8.0E-50 | D90334.1 | NT | Homo sapiens hepatocyte growth factor (HGF) gene, exon 18 |

Page 312 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 634 | 13819 | 26843 | 1.07 | 7.0E-50 | BE089591.1 | EST_HUMAN | QV0-BT0703-280400-211-e08 BT0703 Homo sapiens cDNA |
| 6923 | 20238 | 33872 | 0.73 | 7.0E-50 | BF081922.1 | EST_HUMAN | RC8-TN0073-150900-011-A12 TN0073 Homo sapiens cDNA |
| 6923 | 20238 | 33873 | 0.73 | 7.0E-50 | BF081922.1 | EST_HUMAN | RC8-TN0073-150900-011-A12 TN0073 Homo sapiens cDNA |
| 7457 | 20533 | 34008 | 0.74 | 7.0E-50 | AA627622.1 | EST_HUMAN | nc60e12.s1 NCL CGAP_C09 Homo sapiens cDNA clone IMAGE:1148206 3' similar to gb:X69391.60S |
| 10993 | 24072 | 37705 | 23.18 | 7.0E-50 | AI872137.1 | EST_HUMAN | RIBOSOMAL PROTEIN L6 (HUMAN); |
| 4462 | 17602 | | 0.67 | 6.0E-50 | BE784381.1 | EST_HUMAN | nm55g11.x1 NCL CGAP_U12 Homo sapiens cDNA clone IMAGE:2439908 3' |
| 8408 | 21489 | | 3.28 | 6.0E-50 | BE044078.1 | EST_HUMAN | 601589565F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943577 6' |
| 11053 | 24130 | 37765 | 3.32 | 6.0E-50 | AA312079.1 | EST_HUMAN | nc38h04.x1 NCL CGAP_U11 Homo sapiens cDNA clone IMAGE:3039611 3' similar to contains MER28.b3 |
| 11053 | 24130 | 37768 | 3.32 | 6.0E-50 | AA312079.1 | EST_HUMAN | MER29 repetitive element; |
| 1635 | 14982 | 28080 | 1.34 | 5.0E-50 | BF332938.1 | EST_HUMAN | EST182775 Jurkat T-cells VI Homo sapiens cDNA 5' end |
| 1835 | 14982 | 28081 | 1.34 | 5.0E-50 | BF332938.1 | EST_HUMAN | EST182775 Jurkat T-cells VI Homo sapiens cDNA 5' end |
| 8294 | 22370 | | 5.27 | 5.0E-50 | AA557683.1 | EST_HUMAN | CNV-BT0792-300500-398-505 BT0792 Homo sapiens cDNA |
| 12080 | 25070 | 38777 | 1.78 | 5.0E-50 | AA403053.1 | EST_HUMAN | nm45h10.s1 NCL CGAP_P14 Homo sapiens cDNA clone IMAGE:1043883 similar to contains PTR6.13 P TR6 repetitive element; |
| 940 | 14114 | | 2.31 | 4.0E-50 | AA601143.1 | EST_HUMAN | z62b01.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:726889 5' similar to TR:G1335769 |
| 3336 | 16701 | 29712 | 2.06 | 4.0E-50 | AL163248.2 | NT | G1335769 GAG-POL POLYPROTEIN.; |
| 6491 | 19657 | 33020 | 0.92 | 4.0E-50 | BE087536.1 | EST_HUMAN | nc54e09.s1 NCL CGAP_SS1 Homo sapiens cDNA clone IMAGE:1104620 3' similar to gb:X63741_ma1 |
| 7383 | 20461 | 33924 | 1.02 | 4.0E-50 | BE087536.1 | EST_HUMAN | FIBULIN-1, ISOFORM A PRECURSOR (HUMAN); |
| 1992 | 16134 | | 9.4 | 3.0E-50 | M18048.1 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 3371 | 16543 | 28557 | 0.92 | 3.0E-50 | AA746142.1 | EST_HUMAN | Homo sapiens cysteinyl-tRNA synthetase (CARS), mRNA |
| 3846 | 17005 | 30008 | 0.9 | 3.0E-50 | AW755254.1 | EST_HUMAN | QV1-BT0681-280300-127-f12 BT0681 Homo sapiens cDNA |
| 6815 | 19868 | 33375 | 0.89 | 3.0E-50 | 11419317 | NT | Human endogenous retrovirus RTVL-H2 |
| 6815 | 19868 | 33375 | 0.89 | 3.0E-50 | 11419317 | NT | CMYA5 Human cardiac muscle expression library Homo sapiens cDNA clone IMAGE:1322827 3' |
| 6804 | 20219 | 33648 | 1.71 | 3.0E-50 | | NT | CMYA5 Human cardiac muscle expression library Homo sapiens cDNA clone 4151835 similar to CMYA5 Cardiomyopathy associated gene 5 |
| 7822 | 20877 | 34376 | 5 | 3.0E-50 | AF233436.2 | NT | Homo sapiens protein tyrosine phosphatase, non-receptor type 12 (PTPN12), mRNA |
| 7822 | 20877 | 34377 | 5 | 3.0E-50 | AF233436.2 | NT | Homo sapiens protein tyrosine phosphatase, non-receptor type 12 (PTPN12), mRNA |
| | | | | | | | Homo sapiens similar to serpin domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3A (H. sapiens) (LOC63232), mRNA |
| | | | | | | | Homo sapiens FYVE domain-containing dual specificity protein phosphatase FYVE-DSP1a mRNA, complete cds |
| | | | | | | | Homo sapiens FYVE domain-containing dual specificity protein phosphatase FYVE-DSP1a mRNA, complete cds |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8782 | 21881 | 35404 | 0.66 | 3.0E-50 | 5601689 | NT | Homo sapiens ankyrin-like with transmembrane domains 1 (ANKTM1), mRNA |
| 10023 | 23081 | 36657 | 1.08 | 3.0E-50 | AB046818.1 | NT | Homo sapiens mRNA for KIAA1688 protein, partial cds |
| 10032 | 23070 | 36870 | 1.03 | 3.0E-50 | 11418514 | NT | Homo sapiens t-complex 10 (a murine top homolog) (TCP10), mRNA |
| 10737 | 23770 | 37380 | 1.04 | 3.0E-50 | AB002297.1 | NT | Human mRNA for KIAA0289 gene, partial cds |
| 11384 | 24425 | 38080 | 1.51 | 3.0E-50 | 11436955 | NT | Homo sapiens Grb2-associated binder 2 (KIAA0571), mRNA |
| 11752 | 23938 | 37564 | 8.19 | 3.0E-50 | AJ245621.1 | NT | Homo sapiens CTL2 gene |
| 13217 | 25792 | 31822 | 1.35 | 3.0E-50 | AB011399.1 | NT | Homo sapiens gene for AF-9, complete cds |
| 789 | 13978 | | 7.94 | 2.0E-50 | AF055066.1 | NT | Homo sapiens MHG class 1 region |
| 1104 | 14269 | 27327 | 6.18 | 2.0E-50 | 4657762 | NT | Homo sapiens midline 1 (Optic/BBB syndrome) (MID1) mRNA |
| 1474 | 14627 | 27713 | 33.77 | 2.0E-50 | AF138303.1 | NT | Homo sapiens decorin D mRNA, complete cds, alternatively spliced |
| 4376 | 17519 | 30498 | 0.76 | 2.0E-50 | D88424.1 | NT | Mus musculus mRNA for high-sulfur keratin protein, partial cds |
| 8329 | 18442 | 31412 | 1.37 | 2.0E-50 | AB018319.1 | NT | Homo sapiens mRNA for KIAA0776 protein, partial cds |
| 7007 | 20143 | 33562 | 0.61 | 2.0E-50 | AU124065.1 | EST_HUMAN | AU124065 NT2RM2 Homo sapiens cDNA clone NT2RM2001608 5' |
| 8511 | 21592 | 35126 | 1.03 | 2.0E-50 | AB038162.1 | NT | Homo sapiens TFF gene cluster for trefoil factor, complete cds |
| 8511 | 21592 | 35127 | 1.03 | 2.0E-50 | AB038162.1 | NT | Homo sapiens TFF gene cluster for trefoil factor, complete cds |
| 8650 | 21730 | 35268 | 7.21 | 2.0E-50 | X06956.1 | NT | Human HALPHA44 gene for alpha-tubulin, exons 1-3 |
| 8650 | 21730 | 36289 | 7.21 | 2.0E-50 | X06956.1 | NT | Human HALPHA44 gene for alpha-tubulin, exons 1-3 |
| 10088 | 23128 | 36728 | 1.6 | 2.0E-50 | 9910293 | NT | Mus musculus keratin complex 2, gene 8g (Krt2-6g), mRNA |
| 10088 | 23126 | 36729 | 1.6 | 2.0E-50 | 9910293 | NT | Mus musculus keratin complex 2, gene 8g (Krt2-6g), mRNA |
| 11960 | 24945 | | 1.39 | 2.0E-50 | AF023861.1 | NT | Macaca mulatta cyclophilin A mRNA, complete cds |
| 474 | 13659 | 28701 | 2.17 | 1.0E-50 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 2438 | 16556 | | 10.11 | 1.0E-50 | AJ271735.1 | NT | Homo sapiens Xq pseudautosomal region: segment 1/2 |
| 10308 | 23431 | 37038 | 1.65 | 1.0E-50 | D11078.1 | NT | Homo sapiens RGH2 gene, retrovirus-like element |
| 6104 | 19284 | 32817 | 1.04 | 9.0E-51 | AW511226.1 | EST_HUMAN | h444602.x1 Soares_NFL_T_GBG_S1 Homo sapiens cDNA clone IMAGE:2912378 3' similar to TR:O85636 |
| 6354 | 19524 | 32887 | 0.88 | 9.0E-51 | AA744837.1 | EST_HUMAN | O95936 CAMP-REGULATED GUANINE NUCLEOTIDE EXCHANGE FACTOR II. ; |
| 8872 | 21951 | 35487 | 0.7 | 9.0E-51 | AJ791154.1 | EST_HUMAN | ny67h03.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1283381 3' |
| 9525 | 22590 | 36161 | 1.29 | 9.0E-51 | AA043738.1 | EST_HUMAN | ab23g04.x5 Stratagene lung (#837210) Homo sapiens cDNA clone IMAGE:841686 3' similar to |
| | | | | | | EST_HUMAN | SW_PSM_HUMAN Q04609 PROSTATE-SPECIFIC MEMBRANE ANTIGEN ; |
| | | | | | | EST_HUMAN | zk51c08.r1 Soares_pregnant_uterus NBHPU Homo sapiens cDNA clone IMAGE:486352 5' |
| | | | | | | EST_HUMAN | ab23g04.x5 Stratagene lung (#837210) Homo sapiens cDNA clone IMAGE:841686 3' similar to |
| | | | | | | EST_HUMAN | SW_PSM_HUMAN Q04609 PROSTATE-SPECIFIC MEMBRANE ANTIGEN ; |
| | | | | | | EST_HUMAN | ab23g04.x5 Stratagene lung (#837210) Homo sapiens cDNA clone IMAGE:841686 3' similar to |
| | | | | | | EST_HUMAN | SW_PSM_HUMAN Q04609 PROSTATE-SPECIFIC MEMBRANE ANTIGEN ; |
| 11764 | 23950 | 37679 | 1.97 | 9.0E-51 | H89078.1 | EST_HUMAN | yw24g08.r1 Marton Fetal Cochlea Homo sapiens cDNA clone IMAGE:263210 5' |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 11784 | 23950 | 37580 | 1.97 | 9.0E-51 | H86078.1 | EST_HUMAN | yw24g08.t1 Morton Fetal Cochlea Homo sapiens cDNA clone IMAGE:263210 5' |
| 12069 | 25050 | 38768 | 1.84 | 9.0E-51 | AA885514.1 | EST_HUMAN | am10h02.s1 Scores_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1488451 3' similar to SW:CAYP_CANFA P10463 CALOPHOSINE ; |
| 4638 | 17897 | 30677 | 1.11 | 8.0E-51 | 4503932 | NT | Homo sapiens glycine amidinotransferase (L-arginineglycine amidinotransferase) (GATM) mRNA |
| 4559 | 17697 | 30678 | 1.11 | 8.0E-51 | 4503932 | NT | Homo sapiens glycine amidinotransferase (L-arginineglycine amidinotransferase) (GATM) mRNA |
| 4690 | 17825 | 30812 | 5.38 | 8.0E-51 | AA810842.1 | EST_HUMAN | np86a09.s1 NCI_CGAP_Lu1 Homo sapiens cDNA clone IMAGE:1142440 3' similar to gb:U12671_mn1 |
| 7321 | 20403 | 33866 | 0.71 | 8.0E-51 | AF084254.1 | NT | HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1 (HUMAN); |
| 7830 | 20885 | 34387 | 2.11 | 8.0E-51 | 11439587 | NT | Homo sapiens very long-chain acyl-CoA synthetase homolog 1 mRNA, complete cds |
| 9684 | 22528 | 35541 | 1.05 | 8.0E-51 | AU138590.1 | EST_HUMAN | Homo sapiens PDZ-73 protein (PDZ-73/NY-CO-38), mRNA |
| 3354 | 18528 | 29541 | 1.27 | 7.0E-51 | AW899219.1 | EST_HUMAN | Homo sapiens PLCE1 Homo sapiens cDNA clone PLACE1008887 5' |
| 3447 | 18816 | 29833 | 0.82 | 7.0E-51 | AW274720.1 | EST_HUMAN | QV4-NT0028-200400-180-d05 NT0028 Homo sapiens cDNA |
| 4282 | 17427 | 30419 | 1.37 | 7.0E-51 | AL076828.1 | EST_HUMAN | yn34e03.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2695564 3' similar to TR:Q92340 |
| 4282 | 17427 | 30417 | 1.37 | 7.0E-51 | AL076828.1 | EST_HUMAN | Q92340 ATYPICAL PKC SPECIFIC BINDING PROTEIN ; |
| 4376 | 17518 | 30488 | 1.18 | 7.0E-51 | 11421595 | NT | DKFZp434B2229.1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434B2229 5' |
| 4471 | 17611 | 30589 | 1.44 | 7.0E-51 | AW295803.1 | EST_HUMAN | DKFZp434B2229.1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434B2229 5' |
| 11985 | 24870 | 38874 | 1.30 | 7.0E-51 | AF161448.1 | NT | Homo sapiens immunoglobulin superfamily, member 3 (IGSF3), mRNA |
| 1557 | 14710 | 27780 | 0.94 | 8.0E-51 | 6678763 | NT | UHL-BW0-arp-b-05-0.U1.st NCI_CGAP_Sub6 Homo sapiens cDNA clone IMAGE:2729817 3' |
| | | | | | | | Homo sapiens HSPC331 mRNA, partial cds |
| | | | | | | | Homo sapiens putative DNA binding protein (M96), mRNA |
| 2036 | 15177 | 28287 | 5.83 | 6.0E-51 | 7667268 | NT | Homo sapiens KIAA0928 protein Msc2 interacting nuclear target (MINT) homolog (KIAA0928), mRNA |
| 3582 | 16727 | 29743 | 14.85 | 6.0E-51 | 7667268 | NT | Homo sapiens KIAA0928 protein Msc2 interacting nuclear target (MINT) homolog (KIAA0928), mRNA |
| 4426 | 17568 | 30547 | 0.86 | 6.0E-51 | 9910553 | NT | Homo sapiens solute carrier family 2 (facilitated glucose transporter), member 9 (SLC2A9), mRNA |
| 4428 | 17568 | 30548 | 0.86 | 6.0E-51 | 9910553 | NT | Homo sapiens solute carrier family 2 (facilitated glucose transporter), member 9 (SLC2A9), mRNA |
| 6113 | 19293 | 32628 | 1.48 | 6.0E-51 | X01788.1 | NT | Human hemoglobin related (Hpr) gene exon 3 |
| 6124 | 19303 | 32642 | 8.16 | 6.0E-51 | AF070083.1 | NT | Homo sapiens mitogen-activated protein kinase kinase 1 (MKK4) gene, exon 4 |
| 6124 | 19303 | 32643 | 8.16 | 6.0E-51 | AF070083.1 | NT | Homo sapiens mitogen-activated protein kinase kinase 1 (MKK4) gene, exon 4 |
| 6900 | 20216 | 33645 | 0.93 | 6.0E-51 | 4506739 | NT | Homo sapiens ribosomal protein S6 kinase, 70kD, polypeptide 1 (RPS6KB1) mRNA |
| 7032 | 20168 | 33590 | 0.82 | 6.0E-51 | 11416751 | NT | Homo sapiens non-kinase Cdc42 effector protein SPEC2 (LOC66890), mRNA |
| 7104 | 18331 | 31486 | 2.15 | 6.0E-51 | 11426665 | NT | Homo sapiens cerebral cell adhesion molecule (LOC51148), mRNA |
| 9337 | 22413 | 35965 | 0.69 | 6.0E-51 | 11428525 | NT | Homo sapiens hypothetical protein FLJ11042 (FLJ11042), mRNA |
| 9337 | 22413 | 35968 | 0.69 | 6.0E-51 | 11428525 | NT | Homo sapiens hypothetical protein FLJ11042 (FLJ11042), mRNA |
| 9885 | 22925 | 36508 | 2.05 | 6.0E-51 | 7661635 | NT | Homo sapiens B9 protein (B9), mRNA |

Page 315 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 9964 | 23003 | 36598 | 0.79 | 6.0E-51 | U50093.1 | NT | Human ankyrin (ANK1) gene, exon 2 |
| 11634 | 24590 | 38285 | 1.84 | 6.0E-51 | 11526289 | NT | Homo sapiens Interleukin 17 receptor (IL17R), mRNA |
| 814 | 13893 | 27047 | 6.22 | 5.0E-51 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 828 | 14004 | 27061 | 1.71 | 5.0E-51 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 1015 | 15028 | 27247 | 2.39 | 5.0E-51 | AL133204.1 | NT | Novel human gene mapping to chromosome X |
| 1638 | 14780 | 27875 | 1.14 | 5.0E-51 | 5031980 | NT | Homo sapiens 26S proteasome-associated pad1 homolog (POH1) mRNA |
| 2658 | 15781 | 28894 | 10.36 | 5.0E-51 | AJ007558.1 | NT | Homo sapiens mRNA for nucleoporin 155 |
| 4055 | 17211 | 30221 | 1.31 | 5.0E-51 | M30938.1 | NT | Human Ku (p70/p80) subunit mRNA, complete cds |
| 4055 | 17211 | 30222 | 1.31 | 5.0E-51 | M30938.1 | NT | Human Ku (p70/p80) subunit mRNA, complete cds |
| 5183 | 18305 | 31269 | 1.04 | 5.0E-51 | AB037832.1 | NT | Homo sapiens mRNA for KIAA1411 protein, partial cds |
| 11558 | 24613 | 38292 | 3.8 | 5.0E-51 | 5803136 | NT | Homo sapiens RNA binding motif protein 3 (RBM3), mRNA |
| 137 | 13369 | 26397 | 14.25 | 3.0E-51 | AI587346.1 | EST_HUMAN | h81c09.x1 NCL_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2224720 3' similar to gb:M26328 |
| 1203 | 14365 | 27425 | 48.14 | 3.0E-51 | AI587346.1 | EST_HUMAN | KERATIN, TYPE I CYTOSKELETAL 18 (HUMAN); |
| 1976 | 15119 | 28220 | 1.38 | 3.0E-51 | AA211298.1 | EST_HUMAN | h81c09.x1 NCL_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2224720 3' similar to gb:M26328 |
| 4446 | 17596 | 30587 | 1.85 | 3.0E-51 | AL159142.1 | NT | KERATIN, TYPE I CYTOSKELETAL 18 (HUMAN); |
| | | | | | | | zq87g01.s1 Stragene hNT neuron (#937233) Homo sapiens cDNA clone IMAGE:649008 3' |
| | | | | | | | Novel human gene mapping to chromosome 22 |
| 7753 | 20813 | 34304 | 2.3 | 3.0E-51 | R15914.1 | EST_HUMAN | ya47c08.r1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:53233 5' similar to gb:M14123_cde4 |
| 9040 | 22119 | | 3.85 | 3.0E-51 | M29063.1 | NT | RETROVIRUS-RELATED POLYPROTEIN (HUMAN); contains LTR5 repetitive element; |
| 8268 | 26227 | | 0.61 | 3.0E-51 | AW563777.1 | EST_HUMAN | Human hnRNP C2 protein mRNA |
| 12867 | 25578 | | 6.66 | 3.0E-51 | AF003528.1 | NT | h84d08.y1 Human Pancreatic islet Homo sapiens cDNA 5' |
| | | | | | | | Homo sapiens X-linked anhidrotic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 377 | 13585 | 26619 | 1.98 | 2.0E-51 | 4507789 | NT | Homo sapiens ubiquitin protein ligase E3A (human papilloma virus E6-associated protein, Angelman syndrome) (UBE3A) mRNA |
| 706 | 13889 | 26921 | 0.89 | 2.0E-51 | BE391063.1 | EST_HUMAN | 601285684F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3807463 5' |
| 706 | 13889 | 26922 | 0.89 | 2.0E-51 | BE391063.1 | EST_HUMAN | 601285684F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3807463 5' |
| | | | | | | | z30a05.r1 Stragene NT2 neuronal precursor 837230 Homo sapiens cDNA clone IMAGE:684880 5' similar to TR:G233226 G233226 RTV-LH PROTEIN; contains LTR7.13 LTR7 repetitive element; |
| 1723 | 14873 | 27665 | 16.75 | 2.0E-51 | AA233552.1 | EST_HUMAN | h27g03.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2131792 3' |
| 3827 | 16987 | 29990 | 3.05 | 2.0E-51 | AI692415.1 | EST_HUMAN | UI-H-B1-adj-d02-0-UI.s1 NCL_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2718851 3' |
| 4616 | 17753 | 30734 | 1.21 | 2.0E-51 | AW137826.1 | EST_HUMAN | h876c08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2092822 3' similar to TR:P83107 |
| 6326 | 18439 | 31409 | 0.66 | 2.0E-51 | AI381620.1 | EST_HUMAN | P83107 PF20.; |

Page 316 of 550

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6139 | 19317 | 32858 | 3.54 | 2.0E-51 | BE782018.1 | EST_HUMAN | 601470446F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3873583 5' |
| 7462 | 20537 | | 0.73 | 2.0E-51 | AF218927.1 | NT | Homo sapiens diacylglycerol kinase beta (DGK) gene, exon 23 |
| 7616 | 20685 | 34181 | 1.29 | 2.0E-51 | 7662349 | NT | Homo sapiens cell recognition molecule Caspr2 (KIA0888), mRNA |
| 8898 | 21975 | 35512 | 1.61 | 2.0E-51 | BE901894.1 | EST_HUMAN | 601676787F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3958613 5' |
| 8898 | 21975 | 35513 | 1.61 | 2.0E-51 | BE901894.1 | EST_HUMAN | 601676787F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3958613 5' |
| 9236 | 22312 | 35854 | 1.03 | 2.0E-51 | 11037064 | NT | Homo sapiens disrupted in schizophrenia 1 (DISC1), mRNA |
| 9712 | 22777 | 36347 | 1.76 | 2.0E-51 | AI917078.1 | EST_HUMAN | Is74e07.x1 NCI CGAP_G08 Homo sapiens cDNA clone IMAGE:2236880 3' similar to SW:TRKC_HUMAN |
| 9803 | 22843 | 36420 | 4.86 | 2.0E-51 | BE165980.1 | EST_HUMAN | Q16288 NT-3 GROWTH FACTOR RECEPTOR PRECURSOR ; |
| 9818 | 22858 | 36498 | 0.69 | 2.0E-51 | AB007828.1 | NT | MR3-HT0487-160200-113-g01 HT0487 Homo sapiens cDNA |
| 10648 | 23682 | 37283 | 1.58 | 2.0E-51 | AV682474.1 | EST_HUMAN | Homo sapiens mRNA for KIAA0457 protein, partial cds |
| 10680 | 23723 | 37326 | 1.07 | 2.0E-51 | AA378559.1 | EST_HUMAN | AV682474 GKB Homo sapiens cDNA clone GKBAGF05 5' |
| 11610 | 18752 | 31789 | 5.82 | 2.0E-51 | AF732851.1 | EST_HUMAN | ESTB1296 Synovial sarcoma Homo sapiens cDNA 5' end |
| 11610 | 18752 | 31790 | 5.82 | 2.0E-51 | AF732851.1 | EST_HUMAN | 0534f09.x3 NCI CGAP_K45 Homo sapiens cDNA clone IMAGE:1326609 3' similar to SW:NME1_MOUSE |
| 12860 | 25571 | 31992 | 1.62 | 2.0E-51 | 11419159 | NT | P35436 GLUTAMATE [NMDA] RECEPTOR SUBUNIT EPSILON 1 PRECURSOR ; |
| 117 | 13348 | 28375 | 10.94 | 1.0E-51 | 4503528 | NT | 0534f09.x3 NCI CGAP_K45 Homo sapiens cDNA clone IMAGE:1326609 3' similar to SW:NME1_MOUSE |
| 1523 | 14678 | 31036 | 37.16 | 1.0E-51 | AV742248.1 | EST_HUMAN | P35436 GLUTAMATE [NMDA] RECEPTOR SUBUNIT EPSILON 1 PRECURSOR ; |
| 4918 | 18048 | 31036 | 0.82 | 1.0E-51 | AF111168.2 | NT | Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 4 (MLLT4), mRNA |
| 5505 | 18704 | 31720 | 3.7 | 1.0E-51 | T18662.1 | EST_HUMAN | Homo sapiens eukaryotic translation initiation factor 4A, isoform 1 (EIF4A1) mRNA |
| 7827 | 20882 | 34384 | 1.03 | 1.0E-51 | AI672532.1 | EST_HUMAN | AV742248 CB Homo sapiens cDNA clone CBFBG12 5' |
| 8087 | 21169 | 34684 | 0.51 | 1.0E-51 | BF434359.1 | EST_HUMAN | Homo sapiens serine palmitoyl transferase, subunit II gene, complete cds; and unknown genes |
| 12076 | 26232 | | 1.97 | 1.0E-51 | AV760660.1 | EST_HUMAN | b12068 Testis 1 Homo sapiens cDNA clone b12056 |
| 12610 | 25409 | | 9.43 | 9.0E-52 | AA77621.1 | EST_HUMAN | Is39g02.x1 Scores_NHMPu_S1 Homo sapiens cDNA clone IMAGE:2089106 3' |
| 158 | 13381 | 26412 | 11.42 | 8.0E-52 | AA720574.1 | EST_HUMAN | 7096602.x1 NCI CGAP_Ov18 Homo sapiens cDNA clone IMAGE:3644091 3' similar to TR:P87882 P87882 |
| 1628 | 14678 | 27760 | 2.39 | 8.0E-52 | X84900.1 | NT | PROTEASE ; |
| 1688 | 14638 | 27922 | 2.85 | 8.0E-52 | 11968028 | NT | AV760560 MDS Homo sapiens cDNA clone MDSB02 5' |
| | | | | | | | z85e07.s1 Scores_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:448500 3' similar to |
| | | | | | | | contains THR_13 THR repetitive element ; |
| | | | | | | | nm21g02.s1 NCI CGAP_G080 Homo sapiens cDNA clone IMAGE:1241138 3' similar to contains THR_13 |
| | | | | | | | THR repetitive element ; |
| | | | | | | | H. sapiens mRNA for laminin-5, alpha3b chain |
| | | | | | | | Homo sapiens hypothetical protein FLJ13558 similar to N-myc downstream regulated 3 (FLJ13559), mRNA |

Page 317 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 1686 | 14838 | 27923 | 2.85 | 8.0E-52 | 11988028 | NT | Homo sapiens hypothetical protein FLJ13556 similar to N-myc downstream regulated 3 (FLJ13556), mRNA |
| 4101 | 14838 | 27922 | 6.75 | 8.0E-52 | 11988028 | NT | Homo sapiens hypothetical protein FLJ13556 similar to N-myc downstream regulated 3 (FLJ13556), mRNA |
| 4101 | 14838 | 27923 | 6.75 | 8.0E-52 | 11988028 | NT | Homo sapiens hypothetical protein FLJ13556 similar to N-myc downstream regulated 3 (FLJ13556), mRNA |
| 7686 | 20761 | 34232 | 0.76 | 8.0E-52 | 11416595 | NT | Homo sapiens transforming growth factor, beta-induced, 68kD (TGFB1), mRNA |
| 7686 | 20761 | 34233 | 0.76 | 8.0E-52 | 11416595 | NT | Homo sapiens transforming growth factor, beta-induced, 68kD (TGFB1), mRNA |
| 9216 | 22293 | 35836 | 1.86 | 7.0E-52 | W59471.1 | EST_HUMAN | z559a06.r1 Soares_papillary_thyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:326678 5' similar to contains Alu repetitive element; |
| 1214 | 14375 | | 0.63 | 6.0E-52 | BE072409.1 | EST_HUMAN | QV3-BT0537-271299-049-007 BT0537 Homo sapiens cDNA |
| 1729 | 14878 | 27970 | 7.1 | 6.0E-52 | AF106907.1 | NT | Homo sapiens S164 gene, partial cds; PS1 and hypothetical protein genes, complete cds; and S171 gene, partial cds |
| 5845 | 19035 | 32341 | 1.05 | 6.0E-52 | A1208794.1 | EST_HUMAN | q94f04.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1838047 3' |
| 11484 | 24543 | 38214 | 2.36 | 6.0E-52 | BE048172.1 | EST_HUMAN | U46104.v1 NCL CGAP_Bm52 Homo sapiens cDNA clone IMAGE:2291671 5' similar to SW:PCBM_MOUSE Q06763 BASEMENT MEMBRANE-SPECIFIC HEPARAN SULFATE |
| 4562 | 17700 | 30892 | 2.27 | 6.0E-52 | Z78898.1 | NT | PROTEOGLYCAN CORE PROTEIN PRECURSOR; |
| 8392 | 22647 | 36218 | 0.48 | 5.0E-52 | 11437365 | NT | H. sapiens flow-sorted chromosome 6 HindIII fragment, SC6pA18H7 |
| 1895 | 14847 | 27931 | 1.66 | 4.0E-52 | AF257318.1 | NT | Homo sapiens SH3-containing protein SH3GLB1 mRNA, complete cds |
| 1829 | 14977 | 28072 | 1.63 | 4.0E-52 | 4759843 | NT | Homo sapiens nucleoporin 155kD (NUP155) mRNA |
| 4037 | 17193 | 30203 | 0.77 | 4.0E-52 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 4862 | 17895 | 30980 | 0.81 | 4.0E-52 | A1768814.1 | EST_HUMAN | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 5401 | 18303 | 31574 | 1.3 | 4.0E-52 | 4506132 | NT | w189502.x1 NCL CGAP_K12 Homo sapiens cDNA clone IMAGE:2400459 3' |
| 8228 | 21310 | 34830 | 1.19 | 4.0E-52 | BE622032.1 | EST_HUMAN | Homo sapiens phosphatidyl pyrophosphate synthetase-associated protein 2 (PRPSAP2) mRNA |
| 8731 | 21811 | 35347 | 5.5 | 4.0E-52 | 11417035 | NT | Homo sapiens phosphatidyl pyrophosphate synthetase-associated protein 2 (PRPSAP2) mRNA |
| 12426 | 25304 | | 3.44 | 4.0E-52 | 11418177 | NT | 601440887F1 NIH_MSC_72 Homo sapiens cDNA clone IMAGE:3915838 5' |
| 12987 | 25642 | | 12.79 | 4.0E-52 | AB002059.1 | NT | Homo sapiens hydroxyteroid (17-beta) dehydrogenase 4 (HSD17B4), mRNA |
| 13141 | 25741 | | 1.3 | 4.0E-52 | AB011398.1 | NT | Homo sapiens Ran GTPase activating protein 1 (RANGAP1), mRNA |
| 4204 | 17363 | | 11.41 | 3.0E-52 | 11437042 | NT | Homo sapiens DNA for Human P2XM, complete cds |
| 576 | 13768 | 26760 | 1.82 | 2.0E-52 | M10976.1 | NT | Homo sapiens gene for AF-8, complete cds |
| 576 | 13768 | 26761 | 1.82 | 2.0E-52 | M10976.1 | NT | Homo sapiens hypothetical protein FLJ10675 (FLJ10675), mRNA |
| 2071 | 15211 | 28328 | 1.18 | 2.0E-52 | AB033075.1 | NT | Human endogenous retroviral DNA (4-1), complete retroviral segment |
| | | | | | | | Human endogenous retroviral DNA (4-1), complete retroviral segment |
| | | | | | | | Homo sapiens mRNA for KIAA1249 protein, partial cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 2568 | 15693 | 28818 | 1.5 | 2.0E-52 | BE207575.1 | EST_HUMAN | bb6607.y1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3030421 5' similar to gb:X16483 M.musculus mRNA for Zfp-1 zinc finger protein (MOUSE); |
| 2768 | 15911 | | 11.46 | 2.0E-52 | BF677892.1 | EST_HUMAN | 602084710F1 NIH_MGC_63 Homo sapiens cDNA clone IMAGE:4248891 6' |
| 5092 | 18220 | 31100 | 3.41 | 2.0E-52 | AL137183.3 | NT | Novel human gene mapping to chromosome 20, similar to membrane transporters |
| 5126 | 18251 | 31216 | 1.4 | 2.0E-52 | A141802.1 | EST_HUMAN | q656d05.s1 Soares_NHMPu_S1 Homo sapiens cDNA clone IMAGE:1690784 3' |
| 5128 | 18251 | 31217 | 1.4 | 2.0E-52 | A141802.1 | EST_HUMAN | q656d05.s1 Soares_NHMPu_S1 Homo sapiens cDNA clone IMAGE:1690784 3' |
| 5821 | 19011 | 32317 | 3.24 | 2.0E-52 | AW848041.1 | EST_HUMAN | IL3-CT0214-231289-053-E12 CT0214 Homo sapiens cDNA |
| 8497 | 19693 | 33026 | 1.98 | 2.0E-52 | 11141868 | NT | Homo sapiens Interleukin 21 receptor (IL21R), mRNA |
| 8853 | 20006 | 33415 | 0.96 | 2.0E-52 | AB028004.1 | NT | Homo sapiens mRNA for KIAA1081 protein, partial cds |
| 7081 | 20175 | 33597 | 0.76 | 2.0E-52 | A1792146.1 | EST_HUMAN | os45d12.y5 NCJ_CGAP_Br2 Homo sapiens cDNA clone IMAGE:1608311 6' |
| 7996 | 21046 | 34559 | 0.69 | 2.0E-52 | 6032158 | NT | Homo sapiens transducin (beta)-like 1 (TBL1) mRNA |
| 7996 | 21046 | 34559 | 0.69 | 2.0E-52 | 5032158 | NT | Homo sapiens transducin (beta)-like 1 (TBL1) mRNA |
| 8854 | 21633 | | 8.71 | 2.0E-52 | AF147880.1 | NT | Macaca mulatta beta-tubulin mRNA, complete cds |
| 9138 | 22215 | 35759 | 0.96 | 2.0E-52 | AA718765.1 | EST_HUMAN | 245g05.s1 Soares_fetal_liver_spleen_1NFS_S1 Homo sapiens cDNA clone IMAGE:453272 3' |
| | | | | | | | Homo sapiens NADH dehydrogenase (ubiquinone) Fe-S protein 5 (15kD) (NADH-coenzyme Q reductase) (NDUF55) mRNA |
| 8690 | 22642 | | 1 | 2.0E-52 | 4758789 | NT | Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA |
| 10321 | 23356 | 36965 | 4.6 | 2.0E-52 | 5730038 | NT | Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA |
| 10321 | 23356 | 36989 | 4.9 | 2.0E-52 | 5730038 | NT | wj49c04.x1 NCJ_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2408160 3' similar to contains THR.b2 |
| 11481 | 24540 | 38209 | 3.14 | 2.0E-52 | A1831482.1 | EST_HUMAN | THR repetitive element; |
| | | | | | | | wj49c04.x1 NCJ_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2408160 3' similar to contains THR.b2 |
| 11481 | 24540 | 38210 | 3.14 | 2.0E-52 | A1831482.1 | EST_HUMAN | THR repetitive element; |
| 11491 | 24560 | 38225 | 2.52 | 2.0E-52 | AV715377.1 | EST_HUMAN | AV715377 DCB Homo sapiens cDNA clone DCBAIE03 6' |
| 11634 | 24714 | | 1.46 | 2.0E-52 | W70260.1 | EST_HUMAN | z449g12.f1 Soares_fetal_heart_Nb-H19W Homo sapiens cDNA clone IMAGE:344038 5' |
| 11918 | 24904 | | 3.25 | 2.0E-52 | 11417890 | NT | Homo sapiens LIM domain kinase 2 (LIMK2), mRNA |
| | | | | | | | xn72e07.x1 NCJ_CGAP_GML1 Homo sapiens cDNA clone IMAGE:2700036 3' similar to contains Alu |
| 12234 | 26194 | 31541 | 5.9 | 2.0E-52 | AW236297.1 | EST_HUMAN | repetitive element; contains element LTR2 repetitive element; |
| 12658 | 25437 | | 5.72 | 2.0E-52 | A1808985.1 | EST_HUMAN | wf67406.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2360649 3' similar to TR:Q16859 |
| 546 | 13739 | 28764 | 1.89 | 1.0E-52 | AA634445.1 | EST_HUMAN | Q16859 CARBOXYLESTERASE; |
| 1402 | 14566 | 27630 | 18.76 | 1.0E-52 | 4504026 | NT | z475h12.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:743876 3' |
| 2600 | 15724 | | 1.89 | 1.0E-52 | 4502238 | NT | Homo sapiens glutamate-aminonitrate ligase (glutamine synthase) (GLUL) mRNA |
| | | | | | | | Homo sapiens arylsulfatase D (ARSD), transcript variant 1, mRNA |
| | | | | | | | pol-reverse transcriptase homolog (retroviral element) (human, endogenous retroviral element RTVL-Hp1, Genomic, 680 nt) |
| 3126 | 16302 | 29315 | 2.6 | 1.0E-52 | S61070.1 | NT | |

Page 319 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 5448 | 18848 | 31628 | 4.43 | 1.0E-52 | M29426.1 | NT | Human P-glycoprotein (MDR1) gene, exon 4 |
| 6523 | 19888 | 33082 | 2.33 | 1.0E-52 | U38884.1 | NT | Human PMS2 related (hPMSR2) gene, complete cds |
| 7588 | 20859 | 34135 | 2.07 | 1.0E-52 | X07282.1 | NT | Human aldolase C gene for fructose-1,6-bisphosphate aldolase |
| 8014 | 21084 | 34576 | 0.59 | 1.0E-52 | U80017.1 | NT | Homo sapiens basic transcription factor 2 p44 (btf2p44) gene, partial cds, neuronal apoptosis inhibitory protein (nail) and survival motor neuron protein (smn) genes, complete cds |
| 8660 | 21740 | | 1.18 | 1.0E-52 | AL163227.2 | NT | Homo sapiens chromosome 21 segment HS21C027 |
| 9390 | 22466 | 36029 | 0.77 | 1.0E-52 | AF078778.1 | NT | Rattus norvegicus putative four repeat ion channel mRNA, complete cds |
| 10804 | 23837 | | 0.88 | 1.0E-52 | AW020370.1 | EST_HUMAN | d08g05.y1 Morton Fetal Cochlea Homo sapiens cDNA clone IMAGE:2483148 6' |
| 10814 | 23847 | | 1.06 | 1.0E-52 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 11004 | 24083 | 37720 | 2.12 | 1.0E-52 | U48286.1 | NT | Homo sapiens protein tyrosine phosphatase PTPCAAX1 (PTPCAAX1) mRNA, complete cds |
| 11076 | 24150 | | 1.72 | 1.0E-52 | 11428321 | NT | Homo sapiens proteasome (prosome, macropain) subunit, beta type, 2 (PSMB2), mRNA |
| 12135 | 26115 | 38819 | 1.31 | 1.0E-52 | 11421401 | NT | Homo sapiens 5'-3' exoribonuclease 2 (XRN2), mRNA |
| 12135 | 25115 | 38820 | 1.31 | 1.0E-52 | 11421401 | NT | Homo sapiens 5'-3' exoribonuclease 2 (XRN2), mRNA |
| 3891 | 17050 | 30048 | 0.69 | 8.0E-53 | 4806084 | NT | Homo sapiens protein kinase, cAMP-dependent, regulatory, type II, beta (PRKAR2B) mRNA |
| 4511 | 17650 | 30638 | 3.3 | 9.0E-53 | AF001448.1 | NT | Homo sapiens core binding factor alpha1 subunit (CBFA1) gene, exon 3 |
| 12480 | 25332 | | 6.85 | 7.0E-53 | BF238465.1 | EST_HUMAN | 601804771F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4132783 5' |
| 12958 | 26048 | | 7.06 | 7.0E-53 | AK21782.1 | EST_HUMAN | 644107.x1 NCI_CGAP_Bm23 Homo sapiens cDNA clone IMAGE:2088077 3' similar to contains THR.L1 |
| 4214 | 17363 | 30351 | 4.48 | 5.0E-53 | 4758543 | NT | THR repetitive element; |
| 5293 | 18411 | 31377 | 0.92 | 5.0E-53 | AL163282.2 | NT | Homo sapiens heterologous nuclear ribonucleoprotein C (C1/G2) (HNRPC) mRNA |
| 12528 | 25360 | | 1.93 | 5.0E-53 | AW813583.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C082 |
| 50 | 13289 | 26301 | 2.07 | 4.0E-53 | AL163285.2 | NT | RC8-ST0107-161069-011-g10 ST0197 Homo sapiens cDNA |
| 50 | 13289 | 26302 | 2.07 | 4.0E-53 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 9816 | 22671 | | 0.67 | 4.0E-53 | AI613037.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C086 |
| 9958 | 22967 | | 0.84 | 4.0E-53 | F13080.1 | EST_HUMAN | Y08804.x1 NCI_CGAP_UK3 Homo sapiens cDNA clone IMAGE:2276327 3' |
| 11489 | 24548 | 38221 | 2.99 | 4.0E-53 | BF128701.1 | EST_HUMAN | HSC3ID041 normalized infant brain cDNA Homo sapiens cDNA clone c-3id04 |
| 11489 | 24548 | 38222 | 2.99 | 4.0E-53 | BF128701.1 | EST_HUMAN | 601810669F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4083977 5' |
| | | | | | | | 601810669F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4083977 5' |
| | | | | | | | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 2726 | 15844 | 28965 | 2.34 | 3.0E-53 | AB026898.1 | NT | wzz2c07.x1 Soares Dieckgrafe, cdon_NHCD Homo sapiens cDNA clone IMAGE:2558786 3' |
| 3828 | 18885 | 29868 | 1.18 | 3.0E-53 | AW060836.1 | EST_HUMAN | IL2-JM0081-240300-055-D03 UM0081 Homo sapiens cDNA |
| 4713 | 17848 | 30831 | 0.78 | 3.0E-53 | AW003563.1 | EST_HUMAN | Homo sapiens 26S proteasome subunit 9 mRNA, complete cds |
| 5541 | 18738 | 31755 | 0.97 | 3.0E-53 | AF001212.1 | NT | Homo sapiens 26S proteasome subunit 9 mRNA, complete cds |
| 5743 | 18936 | 32236 | 1.01 | 3.0E-53 | | NT | Homo sapiens MIL1 protein (MIL1), mRNA |
| 6323 | 19495 | 32851 | 1.46 | 3.0E-53 | BE160025.1 | EST_HUMAN | QV1-HT0412-280300-123-c04 HT0412 Homo sapiens cDNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|-----------------------------|-------------------------------|--|
| 7247 | 20330 | 33778 | 0.76 | 3.0E-53 | Y10388.3 | NT | H.sapiens graft gene |
| 7247 | 20330 | 33777 | 0.76 | 3.0E-53 | Y10388.3 | NT | H.sapiens graft gene |
| 8499 | 21690 | 35118 | 10.97 | 3.0E-53 | S72043.1 | NT | GIF=growth inhibitory factor [human, brain, Genbank, 2015 nt] |
| 9060 | 22139 | 35683 | 0.85 | 3.0E-53 | 10835090 | NT | Homo sapiens bone morphogenetic protein 5 (BMP5), mRNA |
| 9257 | 22334 | | 9.77 | 3.0E-53 | 5901953 | NT | Homo sapiens FGF1 oncogene partner (FOP), mRNA |
| 12361 | 25269 | | 1.18 | 3.0E-53 | 11426423 | NT | Homo sapiens acyl-Coenzyme A carboxylase alpha (ACACA), mRNA |
| 470 | 13665 | | 11.25 | 2.0E-53 | AA366596.1 | EST_HUMAN | EST77525 Pancreas tumor III Homo sapiens cDNA 5' end |
| 2088 | 16209 | 28325 | 3.29 | 2.0E-53 | 7705394 | NT | Homo sapiens hyaluronate acid receptor (HAR), mRNA |
| 2404 | 16635 | 28662 | 6.28 | 2.0E-53 | U78027.1 | NT | Homo sapiens Bruton's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44L), and FTP3 (FTP3) genes, complete cds |
| 2601 | 15725 | | 12.68 | 2.0E-53 | 4502316 | NT | Homo sapiens ATPase, H+ transporting, lysosomal (vacuolar proton pump) 31kD; Vacuolar proton-ATPase, subunit E; V-ATPase, subunit E (ATP6E), mRNA |
| 3290 | 16464 | 29483 | 0.79 | 2.0E-53 | 7705987 | NT | Homo sapiens leucine aminopeptidase (LOC51056), mRNA |
| 3317 | 16490 | 29508 | 1.29 | 2.0E-53 | AF083822.1 | NT | Homo sapiens dihydropyridine receptor alpha 2 subunit (CACNA2D1) gene, exon 6 |
| 4170 | 17320 | 30313 | 2.59 | 2.0E-53 | MG1873.1 | NT | Human Krueppel-related DNA-binding protein (TF34) gene, partial cds |
| 5542 | 18739 | 31758 | 2.46 | 2.0E-53 | BF334740.1 | EST_HUMAN | PM1-CT0396-170800-001-g03 CT0396 Homo sapiens cDNA |
| 5542 | 18739 | 31757 | 2.46 | 2.0E-53 | BF334740.1 | EST_HUMAN | PM1-CT0396-170800-001-g03 CT0396 Homo sapiens cDNA |
| 8055 | 21138 | 34698 | 1.01 | 2.0E-53 | AW975598.1 | EST_HUMAN | EST387707 MAGE resequences, MAGN Homo sapiens cDNA |
| 8106 | 21278 | | 0.48 | 2.0E-53 | AA095652.1 | EST_HUMAN | 16428.seq.F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA 5' |
| 9608 | 22863 | | 3.47 | 2.0E-53 | AW245678.1 | EST_HUMAN | 2822665 5prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2822665 5' |
| 10862 | 23885 | 37517 | 0.89 | 2.0E-53 | BE550195.1 | EST_HUMAN | 7650602.x1 NC1 CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3231627 3' similar to TRC004009 Q04009 MYOSIN HEAVY CHAIN.1 |
| 1477 | 14630 | 27715 | 2.2 | 1.0E-53 | AJ271736.1 | NT | Homo sapiens Xq pseudautosomal region, segment 2/2 |
| 3496 | 16663 | 29875 | 2.99 | 1.0E-53 | AB026898.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 5078 | 18206 | 31178 | 1.06 | 1.0E-53 | BE295386.1 | EST_HUMAN | 601176725F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3631919 5' |
| 6831 | 19864 | 33392 | 1.5 | 1.0E-53 | BF384201.1 | EST_HUMAN | CM4-NN1029-150800-543-e02 NN1029 Homo sapiens cDNA |
| 7397 | 20475 | 33942 | 0.87 | 1.0E-53 | BE012071.1 | EST_HUMAN | RC5-BN1058-270400-031-D01 BN1058 Homo sapiens cDNA |
| 8120 | 21202 | 34723 | 0.6 | 1.0E-53 | AA249072.1 | EST_HUMAN | 19371.seq.F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA 5' |
| 9280 | 22366 | 35915 | 4.73 | 1.0E-53 | X76536.1 | NT | H.sapiens mRNA for hnRNPc gene protein A1 |
| 12228 | 25176 | 38345 | 1.47 | 1.0E-53 | AW245422.1 | EST_HUMAN | 2822843.3prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2822843 3' |
| 3324 | 16497 | 29516 | 0.61 | 9.0E-54 | 4504116 | NT | Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA |
| 6417 | 25803 | 31593 | 5.86 | 9.0E-54 | 4506786 | NT | Homo sapiens IQ motif containing GTPase activating protein 1 (IQGAP1) mRNA |
| 212 | 13435 | 26465 | 1.29 | 8.0E-54 | BE386785.1 | EST_HUMAN | 601272863F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3614031 5' |

Page 321 of 550
Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 1882 | 15028 | 28133 | 2.08 | 8.0E-54 | 4504610 | NT | Homo sapiens insulin-like growth factor 2 receptor (IGF2R) mRNA |
| 6057 | 19239 | 32584 | 23.39 | 8.0E-54 | 6005700 | NT | Homo sapiens ATP-binding cassette, sub-family A (ABCT1), member 8 (ABCA8), mRNA |
| 395 | 13632 | 26699 | 1.35 | 7.0E-54 | AA812537.1 | EST_HUMAN | al78c12.s1 Soares_testis_NHT Homo sapiens cDNA clone 1377048 3' similar to contains MER30.13 MER30 repetitive element; |
| 1877 | 15021 | 28128 | 2.23 | 7.0E-54 | Y16845.1 | NT | Homo sapiens mRNA for macrophage chemotactic protein-2 |
| 2278 | 15410 | 28541 | 7.63 | 7.0E-54 | N27177.1 | EST_HUMAN | Y668d12.s1 Soares_placenta_8to6weeks_2Nbl-P8to9W Homo sapiens cDNA clone IMAGE:257399 3' similar to contains LTR7.b3 LTR7 repetitive element; |
| 10333 | 23368 | 36978 | 2.1 | 7.0E-54 | 11417222 | NT | Homo sapiens similar to nuclear factor related to kappa B binding protein (H. sapiens) (LOC63182), mRNA |
| 11365 | 24426 | 38081 | 1.4 | 7.0E-54 | 8823698 | NT | Homo sapiens golgin-like protein (GLP), mRNA |
| 11365 | 24428 | 38082 | 1.4 | 7.0E-54 | 8823698 | NT | Homo sapiens golgin-like protein (GLP), mRNA |
| 11570 | 24625 | | 3.42 | 7.0E-54 | AI160189.1 | EST_HUMAN | qb07g03.x1 Soares_fetal_heart_Nbl-H10W Homo sapiens cDNA clone IMAGE:1705204 3' similar to contains OFR.11 OFR repetitive element; |
| 25 | 13263 | 28265 | 0.84 | 6.0E-54 | AB003618.1 | NT | Homo sapiens DNA for MCB, exon 4, 5 and partial cds |
| 396 | 13633 | 28670 | 0.77 | 6.0E-54 | 8922148 | NT | Homo sapiens hypothetical protein DKFp434M035 (DKFp434M035), mRNA |
| 396 | 13633 | 28671 | 0.77 | 6.0E-54 | 8922148 | NT | Homo sapiens hypothetical protein DKFp434M035 (DKFp434M035), mRNA |
| 3355 | 15527 | 29542 | 0.72 | 6.0E-54 | 8922148 | NT | Homo sapiens hypothetical protein DKFp434M035 (DKFp434M035), mRNA |
| 4111 | 17286 | 30266 | 22.75 | 6.0E-54 | 4502872 | NT | Homo sapiens chloride channel 8 (CLCN8) mRNA |
| 4584 | 17721 | 30704 | 1.09 | 6.0E-54 | AV754748.1 | EST_HUMAN | AV754748 TP Homo sapiens cDNA clone TPQAAC10 5' |
| 4968 | 18097 | 31073 | 2.15 | 6.0E-54 | 4505808 | NT | Homo sapiens phosphatidylinositol 4-kinase, catalytic, alpha polypeptide (PIK4CA) mRNA |
| 4966 | 18125 | | 2.04 | 6.0E-54 | Y09846.1 | NT | H. sapiens shc pseudogene, p68 isoform |
| 6115 | 18125 | | 3.31 | 6.0E-54 | Y09846.1 | NT | H. sapiens shc pseudogene, p68 isoform |
| 11741 | 23927 | 37552 | 1.52 | 6.0E-54 | AW813587.1 | EST_HUMAN | RC3-ST0187-151099-011-408 ST0187 Homo sapiens cDNA |
| 2218 | 15352 | 28483 | 1.94 | 6.0E-54 | P51523 | SWISSPROT | ZINC FINGER PROTEIN 84 (ZINC FINGER PROTEIN HPF2) |
| 187 | 13409 | | 56.19 | 4.0E-54 | AF110103.1 | NT | Tupaia belangeri beta-actin mRNA, partial cds |
| 978 | 14151 | 27211 | 14.58 | 4.0E-54 | AA308764.1 | EST_HUMAN | EST177696 Jurkat T-cells VI Homo sapiens cDNA 5' end similar to glyceraldehyde-3-phosphate dehydrogenase |
| 1848 | 14894 | 28098 | 3.26 | 4.0E-54 | D38521.1 | NT | Human mRNA for KIAA0077 gene, partial cds |
| 1848 | 14894 | 28097 | 3.28 | 4.0E-54 | D38521.1 | NT | Human mRNA for KIAA0077 gene, partial cds |
| 3274 | 18448 | | 1.85 | 4.0E-54 | A935086.1 | EST_HUMAN | w026d11.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2326269 3' similar to TR:O02711 |
| 98 | 13331 | 26353 | 8.12 | 3.0E-54 | AA313487.1 | EST_HUMAN | O02711 PRO-POL-DUTPASE POLYPROTEIN; |
| 1604 | 14757 | | 0.86 | 3.0E-54 | AW515742.1 | EST_HUMAN | EST185371 Colon carcinoma (HCC) cell line Homo sapiens cDNA 5' end |
| 2635 | 15758 | 28872 | 1.19 | 3.0E-54 | AL110383.1 | EST_HUMAN | h087g08.x1 NCI_QGAP_GC8 Homo sapiens cDNA clone IMAGE:2816542 3' |
| | | | | | | | DKFp434E0731.1 434 (synonym: hbs3) Homo sapiens cDNA clone DKFp434E0731 5' |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6024 | 19207 | 32527 | 1.36 | 3.0E-54 | 4502434 | NT | Homo sapiens BMX non-receptor tyrosine kinase (BMX) mRNA |
| 7548 | 20820 | 34098 | 1.34 | 3.0E-54 | AA844081.1 | EST_HUMAN | el92c08.s1 Soares_papillary_thyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1388270 3' |
| 7548 | 20820 | 34097 | 1.34 | 3.0E-54 | AA844081.1 | EST_HUMAN | el92c08.s1 Soares_papillary_thyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1388270 3' |
| 11277 | 24344 | | 1.77 | 3.0E-54 | 11434806 | NT | Homo sapiens golgi autoantigen, golgin subfamily a, 5 (GOLGA5), mRNA |
| 11341 | 24404 | 38053 | 4.01 | 3.0E-54 | BF345600.1 | EST_HUMAN | 002019408F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4155121 5' |
| 11650 | 24728 | 38421 | 2.86 | 3.0E-54 | AA393362.1 | EST_HUMAN | z170f12.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:727727 5' similar to TR:G161316 |
| 12336 | 25243 | 32110 | 1.32 | 3.0E-54 | AW954559.1 | EST_HUMAN | G181315 ANDROGEN-DEPENDENT EXPRESSED PROTEIN. ; |
| 12376 | 26149 | | 3.16 | 3.0E-54 | AW748965.1 | EST_HUMAN | EST1366629 MAGC resequences, MAGC Homo sapiens cDNA |
| 659 | 13845 | 26871 | 17.97 | 2.0E-54 | 5031800 | NT | RC1-BT0313-131189-011-b09 BT0313 Homo sapiens cDNA |
| 1306 | 14550 | 27625 | 1.54 | 2.0E-54 | 4507104 | NT | Homo sapiens killer cell lectin-like receptor subfamily G, member 1 (KLRG1), mRNA |
| 2804 | 15727 | 28846 | 1.25 | 2.0E-54 | AW163175.1 | EST_HUMAN | Homo sapiens nuclear antigen Sp100 (SP100) mRNA |
| 2866 | 15767 | 28903 | 2.25 | 2.0E-54 | AL168210.2 | NT | SW:CUL1_HUMAN Q13616 CULLIN HOMOLOG 1 ; |
| 2860 | 16137 | 29155 | 1.95 | 2.0E-54 | AW057824.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C010 |
| 3302 | 16562 | 29577 | 0.8 | 2.0E-54 | AJ278314.1 | NT | wy60b12.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2652927 3' similar to |
| 3638 | 16802 | | 6.1 | 2.0E-54 | AA632925.1 | EST_HUMAN | TR:Q62084 Q62084 PHOSPHOLIPASE C NEIGHBORING ; |
| 4321 | 17464 | | 1.74 | 2.0E-54 | 4502842 | NT | Homo sapiens mRNA for phospholipase C-beta-1b (PLCB1 gene) |
| 4583 | 17701 | | 7.1 | 2.0E-54 | AF208161.1 | NT | Homo sapiens mRNA for phospholipase C-beta-1b (PLCB1 gene) |
| 5591 | 18796 | 31833 | 2.65 | 2.0E-54 | 4768069 | NT | Homo sapiens mRNA for phospholipase C-beta-1b (PLCB1 gene) |
| 5720 | 18913 | 32209 | 1.21 | 2.0E-54 | BE047884.1 | EST_HUMAN | RIBOSOMAL PROTEIN L23 (HUMAN); |
| 5882 | 19071 | 32378 | 3.99 | 2.0E-54 | 11426657 | NT | Homo sapiens chaperonin containing T-complex subunit 9 (CCT6) mRNA |
| 5982 | 19167 | 32487 | 11.29 | 2.0E-54 | AB046811.1 | NT | Homo sapiens eynycin precursor, mRNA, complete cds |
| 5982 | 19167 | 32488 | 11.29 | 2.0E-54 | AB046811.1 | NT | Homo sapiens small inducible cytokine subfamily A (Cys-Cys), member 14 (SCYA14) mRNA |
| 6798 | 19851 | 33351 | 1.63 | 2.0E-54 | AF008915.1 | NT | Homo sapiens EVI5 homolog mRNA, complete cds |
| 6950 | 20263 | 33701 | 0.88 | 2.0E-54 | AB023212.1 | NT | Homo sapiens mRNA for KIAA0995 protein, partial cds |
| 6950 | 20263 | 33702 | 0.88 | 2.0E-54 | AB023212.1 | NT | Homo sapiens mRNA for KIAA0995 protein, partial cds |
| 7273 | 20366 | 33810 | 8.33 | 2.0E-54 | 11426544 | NT | Homo sapiens neurofibromin 1 (neurofibromatosis, von Recklinghausen disease, Watson disease) (NF1), mRNA |
| 9829 | 22869 | 36451 | 3.98 | 2.0E-54 | AB001025.1 | NT | Homo sapiens mRNA for brain pyridine receptor, complete cds |
| 10213 | 23249 | 36838 | 1.14 | 2.0E-54 | 11429127 | NT | Homo sapiens Janus kinase 2 (a protein tyrosine kinase) (JAK2), mRNA |
| 10326 | 23361 | 36971 | 0.76 | 2.0E-54 | 11416762 | NT | Homo sapiens serologically defined colon cancer antigen 10 (SDCCAG10), mRNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 10326 | 23361 | 36972 | 0.76 | 2.0E-54 | 11416762 | NT | Homo sapiens serologically defined colon cancer antigen 10 (SDCCAG10), mRNA |
| 10841 | 23874 | 37494 | 0.46 | 2.0E-54 | AB007931.1 | NT | Homo sapiens mRNA for KIAA0462 protein, partial cds |
| 11275 | 19851 | 33351 | 1.46 | 2.0E-54 | AF008915.1 | NT | Homo sapiens EVI5 homolog mRNA, complete cds |
| 12027 | 25011 | | 1.72 | 2.0E-54 | 7657454 | NT | Homo sapiens pescadillo (zebrafish) homolog 1, containing BRCT domain (PES1), mRNA |
| 12863 | 25501 | 31970 | 4.36 | 2.0E-54 | 8557387 | NT | Homo sapiens period (Drosophila) homolog 3 (PER3), mRNA |
| 4587 | 17724 | | 1.65 | 1.0E-54 | BF315418.1 | EST_HUMAN | 601898230F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4128535 5' |
| 8927 | 22006 | 35545 | 0.5 | 1.0E-54 | 11417222 | NT | Homo sapiens similar to nuclear factor related to kappa B binding protein (H. sapiens) (LOC63182), mRNA |
| 10459 | 23494 | 37105 | 0.52 | 1.0E-54 | AA412409.1 | EST_HUMAN | zu10609.t1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:731484 5' |
| 10459 | 23494 | 37106 | 0.52 | 1.0E-54 | AA412409.1 | EST_HUMAN | zu10609.t1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:731484 5' |
| 13086 | 25709 | | 2.33 | 1.0E-54 | AU077341.1 | EST_HUMAN | AU077341 Sugano cDNA library Homo sapiens cDNA clone Zv6C880 similar to 5'-end region of Human gamma-glutamyl transpeptidase mRNA, 5 end |
| 10568 | 23603 | 37208 | 1.02 | 9.0E-55 | BE081468.1 | EST_HUMAN | QV2-BT0635-180400-143-H12 BT0635 Homo sapiens cDNA |
| 1344 | 14500 | | 1.59 | 8.0E-55 | Y07829.2 | NT | Homo sapiens RFB30 gene for RING finger protein |
| 1348 | 14503 | | 2.77 | 8.0E-55 | Y07829.2 | NT | Homo sapiens RFB30 gene for RING finger protein |
| 11471 | 24530 | | 1.83 | 8.0E-55 | AW408714.1 | EST_HUMAN | fr02a02.x1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2960307 5' |
| 9004 | 22083 | | 0.48 | 7.0E-55 | AW103839.1 | EST_HUMAN | xd76c02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2603522 3' similar to TR:O60365 |
| 9383 | 22458 | 36021 | 1.28 | 7.0E-55 | AA889581.1 | EST_HUMAN | O60365 FOS39564.1; |
| 9416 | 22490 | 36053 | 1.71 | 7.0E-55 | AU139909.1 | EST_HUMAN | al28a11.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1407260 3' |
| 11485 | 24544 | 38215 | 8.08 | 7.0E-55 | AI561036.1 | EST_HUMAN | AU139909 PLACE1 Homo sapiens cDNA clone PLACE1011576 5' |
| 11485 | 24644 | 38216 | 8.08 | 7.0E-55 | AI561036.1 | EST_HUMAN | lg29109.x1 NCI_CGAP_U11 Homo sapiens cDNA clone IMAGE:2210249 3' |
| 12728 | 25911 | 31860 | 1.18 | 7.0E-55 | BE070608.1 | EST_HUMAN | lg29109.x1 NCI_CGAP_U11 Homo sapiens cDNA clone IMAGE:2210249 3' |
| 13050 | 19929 | | 6.37 | 7.0E-55 | H23396.1 | EST_HUMAN | 7e37c01.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3284640 3' |
| 11804 | 24784 | 38492 | 1.96 | 6.0E-55 | AB040934.1 | NT | ym57g07.t1 Soares Infant brain 1N1B Homo sapiens cDNA clone IMAGE:52444 5' |
| 1810 | 14959 | 28051 | 1.21 | 5.0E-55 | AA704971.1 | EST_HUMAN | Homo sapiens mRNA for KIAA1501 protein, partial cds |
| 1810 | 14959 | 28052 | 1.21 | 5.0E-55 | AA704971.1 | EST_HUMAN | ig55b09.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:482617 3' |
| 4894 | 18024 | 31010 | 1.51 | 5.0E-55 | AW206021.1 | EST_HUMAN | ig55b09.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:482617 3' |
| 6670 | 19829 | 33217 | 1.49 | 6.0E-55 | 4502240 | NT | U-H-B11-efy-g-09-Q-U1.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2723536 3' |
| 6670 | 19829 | 33218 | 1.49 | 6.0E-55 | 4502240 | NT | Homo sapiens arylsulfinase E (chondrodysplasia punctata 1) (ARSE), mRNA |
| 6805 | 25833 | 33360 | 1.08 | 5.0E-55 | 4505952 | NT | Homo sapiens arylsulfinase E (chondrodysplasia punctata 1) (ARSE), mRNA |
| 6805 | 25833 | 33361 | 1.08 | 5.0E-55 | 4505952 | NT | Homo sapiens paraoxonase 2 (PON2) mRNA, and translated products |
| 7182 | 20314 | 33757 | 1.03 | 5.0E-55 | 7382477 | NT | Homo sapiens paraoxonase 2 (PON2) mRNA, and translated products |
| 7448 | 20523 | 33906 | 0.72 | 6.0E-55 | 11434422 | NT | Homo sapiens Rho GTPase activating protein 6 (ARHGAP6), transcript variant 5, mRNA |

Page 324 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|-----------------------------|-------------------------------|--|
| 9244 | 22321 | 36865 | 2.3 | 5.0E-55 | 4506302 | NT | Homo sapiens protein tyrosine phosphatase, receptor type, alpha polypeptide (PTPRA) mRNA |
| 9520 | 22565 | | 0.91 | 5.0E-55 | BE064386.1 | EST_HUMAN | RC4-B70310-110300-015-f10 BT0310 Homo sapiens cDNA |
| 10243 | 23278 | 36872 | 1.53 | 5.0E-55 | AB014511.1 | NT | Homo sapiens mRNA for KIAA0811 protein, partial cds |
| 10243 | 23278 | 36873 | 1.53 | 5.0E-55 | AB014511.1 | NT | Homo sapiens mRNA for KIAA0811 protein, partial cds |
| 10427 | 23462 | 37069 | 1.13 | 5.0E-55 | 5453765 | NT | Homo sapiens nel (chicken)-like 2 (NELL2), mRNA |
| 11502 | 24560 | 38238 | 1.3 | 5.0E-55 | 11421849 | NT | Homo sapiens SKAP55 homologue (SKAP-HOM), mRNA |
| 11502 | 24560 | 38237 | 1.3 | 5.0E-55 | 11421849 | NT | Homo sapiens SKAP55 homologue (SKAP-HOM), mRNA |
| 12421 | 26298 | | 1.73 | 5.0E-55 | 11417972 | NT | Homo sapiens pascadillo (zabrafish) homolog 1, containing BRCT domain (PES1), mRNA |
| 86 | 16004 | 26310 | 2.24 | 4.0E-55 | AW657994.1 | EST_HUMAN | EST370084 MAGE resequences, MAGE Homo sapiens cDNA |
| 689 | 13873 | 26906 | 32.17 | 4.0E-55 | 4826973 | NT | Homo sapiens RNA binding motif protein, Y chromosome, family 1, member A1 (RBMV1A1) mRNA |
| 1472 | 14626 | 27710 | 2.15 | 4.0E-55 | 7661713 | NT | Homo sapiens predicted osteoblast protein (GS3786), mRNA |
| 1472 | 14626 | 27711 | 2.15 | 4.0E-55 | 7661713 | NT | Homo sapiens predicted osteoblast protein (GS3786), mRNA |
| 1544 | 14696 | | 1.72 | 4.0E-55 | BF081411.1 | EST_HUMAN | 7f52b10.x1 Soares NSF_F8_9W_OT_PA_P_31 Homo sapiens cDNA clone IMAGE:3360043 3' similar to contains L1.13 L1 repetitive element; |
| 2081 | 15221 | 28341 | 2.19 | 4.0E-55 | 4506180 | NT | Homo sapiens proteasome (prosome, macropain) subunit, alpha type, 2 (PSMA2) mRNA |
| 2081 | 15221 | 28342 | 2.19 | 4.0E-55 | 4506180 | NT | Homo sapiens proteasome (prosome, macropain) subunit, alpha type, 2 (PSMA2) mRNA |
| 2161 | 16287 | 28412 | 8.38 | 4.0E-55 | 4503314 | NT | Homo sapiens diacylglycerol kinase, gamma (80K) (DGKG) mRNA |
| 2161 | 16287 | 28413 | 8.38 | 4.0E-55 | 4503314 | NT | Homo sapiens diacylglycerol kinase, gamma (80K) (DGKG) mRNA |
| 2384 | 15515 | 28844 | 3.02 | 4.0E-55 | 4507794 | NT | Homo sapiens ubiquitin-conjugating enzyme E2 variant 1 (UBE2V1) mRNA |
| 8539 | 21620 | | 9.85 | 4.0E-55 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 11606 | 24563 | | 2.31 | 4.0E-55 | W28189.1 | EST_HUMAN | 43c6 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA |
| 12337 | 25244 | | 1.82 | 4.0E-55 | BF303941.1 | EST_HUMAN | 80188575F2 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4120338 5' |
| 6731 | 19887 | 33279 | 0.68 | 3.0E-55 | AA077156.1 | EST_HUMAN | 7809A09 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA clone 7B09A09 |
| 12273 | 25205 | | 4.18 | 3.0E-55 | BE176519.1 | EST_HUMAN | PM1-HT0603-080300-001-g08 HT0603 Homo sapiens cDNA |
| 13103 | 25718 | | 3.53 | 3.0E-55 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 388 | 13594 | 26630 | 1.69 | 2.0E-55 | X57147.1 | NT | Human endogenous retrovirus pHE.1 (ERV9) |
| 665 | 13757 | | 1.08 | 2.0E-55 | M10976.1 | NT | Human endogenous retroviral DNA (4-1), complete retroviral segment |
| 666 | 13852 | 26880 | 3.98 | 2.0E-55 | 4507296 | NT | Homo sapiens eythaxin-binding protein 1 (STXB1) mRNA, and translated products |
| | | | | | | | Homo sapiens ubiquitin protein ligase E3A (human papilloma virus E6-associated protein, Angelman syndrome) (UBE3A) mRNA |
| 3023 | 18199 | 28222 | 0.89 | 2.0E-55 | 4507798 | NT | CM1-HT0878-150800-357-g03 HT0878 Homo sapiens cDNA |
| 4897 | 18027 | 31014 | 3.51 | 2.0E-55 | BE179886.1 | EST_HUMAN | UI-HF-BNO-aka-1-08-0-UL1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078275 5' |
| 7673 | 25851 | 34217 | 0.85 | 2.0E-55 | AW501988.1 | EST_HUMAN | hr78h08.x1 NCI_CGAP_Kd11 Homo sapiens cDNA clone IMAGE:3134463 3' |
| 9265 | 22342 | 35892 | 0.49 | 2.0E-55 | BF224452.1 | EST_HUMAN | hr78h08.x1 NCI_CGAP_Kd11 Homo sapiens cDNA clone IMAGE:3134463 3' |
| 9285 | 22342 | 35893 | 0.48 | 2.0E-55 | BF224452.1 | EST_HUMAN | hr78h08.x1 NCI_CGAP_Kd11 Homo sapiens cDNA clone IMAGE:3134463 3' |

Page 325 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 9361 | 22436 | | 4.33 | 2.0E-55 | A1002838.1 | EST_HUMAN | am98h05.e1 Stragatene schizo brain S11 Homo sapiens cDNA clone IMAGE:1684185 3' similar to contains THR.b2 THR repetitive element; |
| 9442 | 22516 | | 0.97 | 2.0E-55 | BE007869.1 | EST_HUMAN | QVQ-BN0147-280400-213-qc08 BN0147 Homo sapiens cDNA |
| 11192 | 24261 | 37697 | 2.35 | 2.0E-55 | AU119344.1 | EST_HUMAN | AU119344 HEMBA1 Homo sapiens cDNA clone HEMBA1006983 3' |
| 13177 | 16199 | 28222 | 1.34 | 2.0E-55 | 4507788 | NT | Homo sapiens ubiquitin protein ligase E3A (human papilloma virus E6-associated protein, Angelman syndrome) (UBE3A) mRNA |
| 99 | 13334 | 28361 | 1.62 | 1.0E-55 | 4505060 | NT | Homo sapiens mannose-6-phosphate receptor (cation dependent) (M6PR) mRNA |
| 104 | 13417 | 28446 | 40.5 | 1.0E-55 | U09823.1 | NT | Oryctolagus cuniculus New Zealand white elongation factor 1 alpha (Rabefia2) mRNA, complete cds |
| 686 | 13779 | 28798 | 1.38 | 1.0E-55 | A1026718.1 | EST_HUMAN | ov85g09.x1 Scores testis_NHT Homo sapiens cDNA clone IMAGE:1644180 3' |
| 1173 | 14336 | 27392 | 3.92 | 1.0E-55 | AB020710.1 | NT | Homo sapiens mRNA for KIAA0903 protein, partial cds |
| 2006 | 15146 | 28251 | 2.93 | 1.0E-55 | BE277861.1 | EST_HUMAN | 601120116F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2987027 5' |
| 2006 | 15146 | 28262 | 2.33 | 1.0E-55 | BE277861.1 | EST_HUMAN | 601120116F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2987027 5' |
| 2401 | 15532 | | 4.85 | 1.0E-55 | 5803174 | NT | Homo sapiens SMA3 (SMA3), mRNA |
| 2415 | 15597 | 28673 | 1.44 | 1.0E-55 | AF000990.1 | NT | Homo sapiens testis-specific Testis Transcript Y 1 (TTY1) mRNA, partial cds |
| 2586 | 16711 | 28829 | 19.68 | 1.0E-55 | X13111.1 | NT | Human mRNA for HLA-A*11E, a MHC class I molecule (major histocompatibility complex) |
| 2620 | 15743 | 28857 | 5.51 | 1.0E-55 | AB007866.2 | NT | Homo sapiens mRNA for KIAA0406 protein, partial cds |
| 2620 | 15743 | 28868 | 5.51 | 1.0E-55 | AB007866.2 | NT | Homo sapiens mRNA for KIAA0406 protein, partial cds |
| 2677 | 15797 | 28914 | 9.37 | 1.0E-55 | L64057.1 | NT | Homo sapiens CLP mRNA, partial cds |
| 2850 | 15984 | 29073 | 1.22 | 1.0E-55 | AB033046.1 | NT | Homo sapiens mRNA for KIAA1219 protein, partial cds |
| 3495 | 16882 | 29674 | 1.16 | 1.0E-55 | W28189.1 | EST_HUMAN | 43c5 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA |
| 4097 | 17262 | 30263 | 4.28 | 1.0E-55 | AL163287.2 | NT | Homo sapiens chromosome 21 segment HS21C067 |
| 4409 | 17551 | 30536 | 1.1 | 1.0E-55 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 4853 | 17986 | | 0.84 | 1.0E-55 | N77281.1 | EST_HUMAN | yv44g03.r1 Scores fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:245620 5' |
| 4949 | 18079 | 31054 | 1.15 | 1.0E-55 | AB037163.1 | NT | Homo sapiens DSCR5b mRNA, complete cds |
| 4949 | 18079 | 31055 | 1.15 | 1.0E-55 | AB037163.1 | NT | Homo sapiens DSCR5b mRNA, complete cds |
| 5614 | 18808 | 31876 | 0.65 | 1.0E-55 | AF119856.1 | NT | Homo sapiens DSCR5b mRNA, complete cds |
| 6401 | 19570 | 32932 | 7.26 | 1.0E-55 | 11433046 | NT | Homo sapiens hct domain and RLD 2 (HERC2), mRNA |
| 6401 | 19570 | 32933 | 7.26 | 1.0E-55 | 11433046 | NT | Homo sapiens hct domain and RLD 2 (HERC2), mRNA |
| 8178 | 21280 | 34792 | 1.7 | 1.0E-55 | 11432894 | NT | Homo sapiens discs, large (Drosophila) homolog 2 (chapsyn-110) (DLG2), mRNA |
| 8178 | 21280 | 34793 | 1.7 | 1.0E-55 | 11432894 | NT | Homo sapiens discs, large (Drosophila) homolog 2 (chapsyn-110) (DLG2), mRNA |
| 8268 | 21348 | 34863 | 0.48 | 1.0E-55 | 11421648 | NT | Homo sapiens SKAP55 homologue (SKAP-HOM), mRNA |
| 8273 | 21365 | 34872 | 0.93 | 1.0E-55 | AF224492.1 | NT | Homo sapiens phospholipid scramblase 1 gene, complete cds |
| 8273 | 21365 | 34873 | 0.93 | 1.0E-55 | AF224492.1 | NT | Homo sapiens phospholipid scramblase 1 gene, complete cds |

Page 326 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 11152 | 24223 | 37851 | 2.41 | 1.0E-55 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 11152 | 24223 | 37852 | 2.41 | 1.0E-55 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 11733 | 23919 | 37544 | 1.86 | 1.0E-55 | U50950.1 | NT | Human infant brain unknown product mRNA, complete cds |
| 11755 | 23941 | 37567 | 1.34 | 1.0E-55 | T10045.1 | EST_HUMAN | seq1676 b4HB3MA Cx6-HAP-Ft Homo sapiens cDNA clone b4HB3MA-COT8-HAP-Ft61 5' similar to similar to Chinese Hamster DHFR-coamplified protein mRNA |
| 11799 | 24779 | 38478 | 2.67 | 1.0E-55 | 8922743 | NT | Homo sapiens hypothetical protein FLJ10891 (FLJ10891), mRNA |
| 11876 | 24864 | 38660 | 1.78 | 1.0E-55 | 10567821 | NT | Homo sapiens DNA-binding protein (LOC56242), mRNA |
| 7522 | 20595 | 34070 | 1.85 | 9.0E-56 | BE376074.1 | EST_HUMAN | 601237702F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3609552 5' |
| 11545 | 24601 | 38277 | 1.34 | 8.0E-56 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 2793 | 15809 | 28017 | 7.08 | 7.0E-56 | H19934.1 | EST_HUMAN | Yn62g03.11 Soares adult brain N265HB55Y Homo sapiens cDNA clone IMAGE:173044 5' similar to contains THR repetitive element; |
| 7818 | 20873 | 34371 | 1.93 | 7.0E-56 | AW361213.1 | EST_HUMAN | RC1-CT0252-231099-013-b07 CT0252 Homo sapiens cDNA |
| 7818 | 20873 | 34372 | 1.93 | 7.0E-56 | AW361213.1 | EST_HUMAN | RC1-CT0252-231099-013-b07 CT0252 Homo sapiens cDNA |
| 1727 | 14877 | 27868 | 2.7 | 5.0E-56 | AW697712.1 | EST_HUMAN | RC3-BN0053-170200-011-h01 BN0053 Homo sapiens cDNA |
| 9352 | 22437 | 35895 | 0.71 | 5.0E-56 | AW015507.1 | EST_HUMAN | UJ-H-B10p-aa-u-05-UJ.1 NCI CGAP Sub2 Homo sapiens cDNA clone IMAGE:2710944 3' |
| 10589 | 23634 | 26268 | 1.35 | 6.0E-56 | W28189.1 | EST_HUMAN | 43c5 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA |
| 12513 | 28137 | 31650 | 2.47 | 5.0E-56 | H55099.1 | EST_HUMAN | CHR220038 Chromosome 22 exon Homo sapiens cDNA clone C22_65 5' |
| 28 | 13266 | 26268 | 8.64 | 4.0E-56 | AF141349.1 | NT | Homo sapiens beta-tubulin mRNA, complete cds |
| 28 | 13266 | 26268 | 8.64 | 4.0E-56 | AF141349.1 | NT | Homo sapiens beta-tubulin mRNA, complete cds |
| 2773 | 16888 | 28999 | 3.61 | 4.0E-56 | 4507728 | NT | Homo sapiens tubulin, beta polypeptide (TUBB) mRNA |
| 2773 | 16888 | 28999 | 3.61 | 4.0E-56 | 4507728 | NT | Homo sapiens tubulin, beta polypeptide (TUBB) mRNA |
| 2873 | 13732 | 26756 | 9.22 | 4.0E-56 | AF003528.1 | NT | Homo sapiens X-linked arylidic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 6387 | 19556 | 32915 | 4.94 | 4.0E-56 | AF217508.1 | NT | Homo sapiens uncharacterized bone marrow protein BN031 mRNA, complete cds |
| 6387 | 19556 | 32916 | 4.94 | 4.0E-56 | AF217508.1 | NT | Homo sapiens uncharacterized bone marrow protein BN031 mRNA, complete cds |
| 10724 | 23767 | 37364 | 1.88 | 4.0E-56 | AF043349.1 | NT | Homo sapiens lymphocyte-specific protein 1 (LSP1) gene, LSP1-7 allele, partial cds |
| 11163 | 24234 | 37863 | 7.73 | 4.0E-56 | A1498086.1 | EST_HUMAN | trf65g12.x1 NCI CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2163048 3' |
| 11163 | 24234 | 37864 | 7.73 | 4.0E-56 | A1498086.1 | EST_HUMAN | trf65g12.x1 NCI CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2163048 3' |
| 1372 | 14527 | 27601 | 2.69 | 3.0E-56 | 8924029 | NT | Homo sapiens hypothetical protein PRO1304 (PRO1304), mRNA |
| 1804 | 14953 | 28047 | 1.64 | 3.0E-56 | 6912743 | NT | Homo sapiens 5'-3' exoribonuclease 2 (XRN2), mRNA |
| 2217 | 15351 | 28482 | 1.6 | 3.0E-56 | 6912697 | NT | Homo sapiens oncogene TC21 (TC21), mRNA |
| 3195 | 18370 | 29378 | 1.67 | 3.0E-56 | AA325828.1 | EST_HUMAN | EST28889 Cerebellum II Homo sapiens cDNA 5' end |
| 3195 | 18370 | 29377 | 1.67 | 3.0E-56 | AA325828.1 | EST_HUMAN | EST28889 Cerebellum II Homo sapiens cDNA 5' end |
| 3639 | 17098 | | 2.81 | 3.0E-56 | AF055086.1 | NT | Homo sapiens MHC class 1 region |

Page 327 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 4507 | 17846 | 30634 | 0.67 | 3.0E-56 | 7657042 | NT | Homo sapiens Down syndrome candidate region 1 (DSCR1), mRNA |
| 4544 | 17882 | 30684 | 4.42 | 3.0E-56 | AL163268.2 | NT | Homo sapiens chromosome 21 segment HS21C008 |
| 4695 | 17830 | 30816 | 2.4 | 3.0E-56 | 5902085 | NT | Homo sapiens superkiller viral-like activity 2 (S. cerevisiae homolog) like (SKIV2L), mRNA |
| 5801 | 18991 | 32293 | 1.5 | 3.0E-56 | 4759163 | NT | Homo sapiens spermatocyte, cwcw and kazal-like domains proteoglycan (testican) (SPOCK) mRNA |
| 5801 | 18991 | 32294 | 1.5 | 3.0E-56 | 4759163 | NT | Homo sapiens spermatocyte, cwcw and kazal-like domains proteoglycan (testican) (SPOCK) mRNA |
| 7014 | 20150 | 33371 | 5.5 | 3.0E-56 | 11421124 | NT | Homo sapiens lysosomal-associated membrane protein 2 (LAMP2), mRNA |
| 7476 | 20551 | 34023 | 2.07 | 3.0E-56 | 4504970 | NT | Homo sapiens LIM binding domain 2 (LDB2) mRNA |
| 7476 | 20551 | 34024 | 2.07 | 3.0E-56 | 4504970 | NT | Homo sapiens LIM binding domain 2 (LDB2) mRNA |
| 9016 | 22056 | 35636 | 6.11 | 3.0E-56 | 11418704 | NT | Homo sapiens bone morphogenetic protein 5 (BMP5), mRNA |
| 10018 | 23056 | 36652 | 0.9 | 3.0E-56 | D83479.2 | NT | Homo sapiens mRNA for KIAA0145 protein, partial cds |
| 10698 | 23731 | 37336 | 1.39 | 3.0E-56 | 11434956 | NT | Homo sapiens KIAA0317 gene product (KIAA0317), mRNA |
| 10980 | 24059 | 37693 | 2.62 | 3.0E-56 | AB042556.1 | NT | Homo sapiens mRNA, similar to rat myonectin, complete cds |
| 11594 | 24847 | 38330 | 4.84 | 3.0E-56 | 5902013 | NT | Homo sapiens nuclear pore complex interacting protein (NPIP), mRNA |
| 11594 | 24847 | 38331 | 4.84 | 3.0E-56 | 5902013 | NT | Homo sapiens nuclear pore complex interacting protein (NPIP), mRNA |
| 12377 | 25268 | 32075 | 1.62 | 3.0E-56 | 11434876 | NT | Homo sapiens caveolin 3 (CAV3), mRNA |
| 12377 | 25268 | 32076 | 1.62 | 3.0E-56 | 11434876 | NT | Homo sapiens caveolin 3 (CAV3), mRNA |
| 637 | 13730 | | 11.95 | 2.0E-56 | AA189818.1 | EST_HUMAN | zfp520.8, s1 Stratagene neuroepithelium (#33723) Homo sapiens cDNA clone IMAGE:845208 3' |
| 761 | 16021 | 26976 | 1.18 | 2.0E-56 | BE064386.1 | EST_HUMAN | RC4-BT0310-110300-016-f10 BT0310 Homo sapiens cDNA |
| 761 | 16021 | 26976 | 1.18 | 2.0E-56 | BE064386.1 | EST_HUMAN | RC4-BT0310-110300-015-f10 BT0310 Homo sapiens cDNA |
| 3053 | 10229 | 29249 | 0.94 | 2.0E-56 | AB037835.1 | NT | Homo sapiens mRNA for KIAA1414 protein, partial cds |
| 3391 | 16561 | | 0.84 | 2.0E-56 | AB008681.1 | NT | Homo sapiens gene for activin receptor type IIB, complete cds |
| 3624 | 16788 | 29805 | 1.26 | 2.0E-56 | AV703184.1 | EST_HUMAN | AV703184 AD8 Homo sapiens cDNA clone AB03CFG10 6' |
| 7239 | 20323 | 33767 | 1.39 | 2.0E-56 | 5730038 | NT | Homo sapiens SET domain and maltrin transposase fusion gene (SETMAR) mRNA |
| 1003 | 14174 | | 3.01 | 1.0E-56 | AF160930.1 | NT | Macaca fascicularis protein tyrosine phosphatase (PTP-1) mRNA, complete cds |
| 3765 | 16926 | 26928 | 1.84 | 1.0E-56 | AW598833.1 | EST_HUMAN | hg23c11.x1 NCI_CGAP_G06 Homo sapiens cDNA clone IMAGE:2948452 3' |
| 3765 | 16928 | 26929 | 1.84 | 1.0E-56 | AW598833.1 | EST_HUMAN | hg23c11.x1 NCI_CGAP_G06 Homo sapiens cDNA clone IMAGE:2948452 3' |
| 5145 | 16288 | 31238 | 1.42 | 1.0E-56 | AI05162.1 | EST_HUMAN | QV-BT0177-130199-079 BT0177 Homo sapiens cDNA |
| 10161 | 23198 | | 0.69 | 1.0E-56 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 10254 | 23289 | 36886 | 1.52 | 1.0E-56 | AW845987.1 | EST_HUMAN | RC2-OT0163-220996-001-E02 OT0163 Homo sapiens cDNA |
| 642 | 13927 | | 1.39 | 9.0E-57 | AW880885.1 | EST_HUMAN | QVQ-OT0033-070300-162-H03 OT0033 Homo sapiens cDNA |
| 11494 | 24552 | 38227 | 1.72 | 9.0E-57 | AF228497.1 | NT | Homo sapiens serine protease 17 (KLK4) gene, complete cds |
| 11494 | 24552 | 38228 | 1.72 | 9.0E-57 | AF228497.1 | NT | Homo sapiens serine protease 17 (KLK4) gene, complete cds |

Page 328 of 550

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descripr |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 11811 | 24801 | 38500 | 2.2 | 9.0E-57 | AB020981.1 | NT | Homo sapiens mRNA for cyclin B2, complete cds |
| 14 | 13252 | 28252 | 1.02 | 8.0E-57 | 8923349 | NT | Homo sapiens hypothetical protein FLJ20371 (FLJ20371), mRNA |
| 308 | 13524 | 28568 | 2.93 | 8.0E-57 | AW818405.1 | EST_HUMAN | QV4-ST0234-181199-037-05 ST0234 Homo sapiens cDNA x05d10.x1 NCI_CGAP_Brn53 Homo sapiens cDNA clone IMAGE:2759251 3' similar to gb:U05876 |
| 907 | 14082 | 27147 | 7.49 | 8.0E-57 | AW284699.1 | EST_HUMAN | INTERFERON-GAMMA RECEPTOR BETA CHAIN PRECURSOR (HUMAN); z051b12.1 Scores: NHT Homo sapiens cDNA clone IMAGE:757151 5' |
| 1859 | 15005 | 28112 | 1.45 | 8.0E-57 | AA496108.1 | EST_HUMAN | Homo sapiens aconitase 2, mitochondrial (ACO2), mRNA |
| 5355 | 26034 | 31679 | 1.92 | 8.0E-57 | 114718185 | NT | Homo sapiens mRNA for KIAA0898 protein, partial cds |
| 6529 | 19693 | 33066 | 0.81 | 8.0E-57 | AB020705.1 | NT | Homo sapiens mRNA for KIAA0960 protein, partial cds |
| 6593 | 19753 | 33138 | 12.82 | 8.0E-57 | AB023177.1 | NT | Homo sapiens mRNA for KIAA0960 protein, partial cds |
| 6593 | 19753 | 33139 | 12.82 | 8.0E-57 | AB023177.1 | NT | Homo sapiens KIAA0716 gene product (KIAA0716), mRNA |
| 7607 | 20877 | 34152 | 0.62 | 8.0E-57 | 7692263 | NT | Homo sapiens mRNA for KIAA0837 protein, partial cds |
| 7627 | 20977 | 34486 | 1.54 | 8.0E-57 | AB020844.1 | NT | Homo sapiens mRNA for KIAA0837 protein, partial cds |
| 7927 | 20977 | 34487 | 1.54 | 8.0E-57 | AB020844.1 | NT | Homo sapiens hypothetical protein FLJ20371 (FLJ20371), mRNA |
| 11768 | 13252 | 28252 | 3.51 | 8.0E-57 | 8923349 | NT | Homo sapiens ninein (LOC51199), mRNA |
| 12041 | 25022 | 38728 | 1.74 | 8.0E-57 | 11433356 | NT | Homo sapiens Ras suppressor protein 1 (RSU1), mRNA |
| 12102 | 25082 | 38789 | 1.53 | 8.0E-57 | 11431280 | NT | Homo sapiens SH3-domain binding protein 1 (SH3BP1), mRNA |
| 12761 | 25628 | 32007 | 1.67 | 8.0E-57 | 11646732 | NT | Homo sapiens SH3-domain binding protein 1 (SH3BP1), mRNA |
| 12808 | 25628 | 32007 | 1.94 | 8.0E-57 | 11545732 | NT | Homo sapiens SH3-domain binding protein 1 (SH3BP1), mRNA |
| 1246 | 14405 | 27467 | 0.88 | 7.0E-57 | AJ003100.1 | NT | Homo sapiens GYS2 gene, exon 14 |
| 2698 | 15817 | 28932 | 0.97 | 7.0E-57 | 7657592 | NT | Homo sapiens smg GDS-ASSOCIATED PROTEIN (SMAP), mRNA |
| 2698 | 15817 | 28933 | 0.97 | 7.0E-57 | 7657592 | NT | Homo sapiens smg GDS-ASSOCIATED PROTEIN (SMAP), mRNA |
| 3344 | 16517 | 29532 | 0.81 | 7.0E-57 | 6005979 | NT | Homo sapiens Kruppel-like factor 8 (KLF8), mRNA |
| 3982 | 17139 | 30143 | 3.14 | 7.0E-57 | AF012872.1 | NT | Homo sapiens phosphatidylinositol 4-kinase 230 (p4K230) mRNA, complete cds |
| 3982 | 17139 | 30144 | 3.14 | 7.0E-57 | AF012872.1 | NT | Homo sapiens phosphatidylinositol 4-kinase 230 (p4K230) mRNA, complete cds |
| 13185 | 26071 | | 3.99 | 5.0E-57 | AJ271735.1 | NT | Homo sapiens Xq pseudautosomal region; segment 1/2 |
| 3849 | 17009 | 30010 | 6.03 | 4.0E-57 | AB026898.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 827 | 14005 | 27082 | 0.64 | 3.0E-57 | 4507798 | NT | Homo sapiens ubiquitin protein ligase E3A (human papilloma virus E6-associated protein, Angelman syndrome) (UBE3A) mRNA |
| 1362 | 14518 | | 12.47 | 3.0E-57 | AA230279.1 | EST_HUMAN | nc1307.s1 NCI_CGAP_Fr1 Homo sapiens cDNA clone IMAGE:1008037 similar to SWRS10_HUMAN |
| 2484 | 15591 | 28716 | 1.12 | 3.0E-57 | AA348335.1 | EST_HUMAN | P48783 40S RIBOSOMAL PROTEIN S10 ; EST64770 Hippocampus II Homo sapiens cDNA 5' end |
| 2768 | 15383 | 28992 | 1.03 | 3.0E-57 | BE676822.1 | EST_HUMAN | 783b10.x1 NCI_CGAP_GLL1 Homo sapiens cDNA clone IMAGE:3288443 3' similar to WP.Y47H9C.2 CE20268 ; |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO. | Exon SEQ ID NO. | ORF SEQ ID NO. | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 2768 | 15883 | 28993 | 1.03 | 3.0E-57 | BE676022.1 | EST_HUMAN | 7133b10.x1 NCI_CGAP_GLI1 Homo sapiens cDNA clone IMAGE:3206443 3' similar to WP:Y47H9C.2 |
| 3652 | 18816 | 29827 | 1 | 3.0E-57 | AF232708.1 | NT | CE20263 ; Homo sapiens cell-line tsA201a chlorido ion current inducer protein (Cln) gene, complete cds |
| 3788 | 10949 | | 51.29 | 3.0E-57 | AW853864.1 | EST_HUMAN | RC3-CT0254-110300-027-410 CT0254 Homo sapiens cDNA |
| 6153 | 19328 | 32875 | 1.25 | 3.0E-57 | 11225608 | NT | Homo sapiens angiotensin I converting enzyme (peptidyl-dipeptidase A) 2 (ACE2), mRNA |
| 6261 | 19425 | 32771 | 3.25 | 3.0E-57 | BE786537.1 | EST_HUMAN | 601589896F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3944302 5' |
| 8338 | 21418 | 34945 | 3.92 | 3.0E-57 | W28130.1 | EST_HUMAN | 4216 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA |
| 8363 | 21444 | 34968 | 1.89 | 3.0E-57 | 11545788 | NT | Homo sapiens hypothetical protein FLJ11658 (FLJ11658), mRNA |
| 8363 | 21444 | 34967 | 1.99 | 3.0E-57 | 11545788 | NT | Homo sapiens hypothetical protein FLJ11658 (FLJ11658), mRNA |
| 8476 | 21557 | 35090 | 0.78 | 3.0E-57 | 11545788 | NT | Homo sapiens KIAA0649 gene product (KIAA0649), mRNA |
| 8624 | 21704 | 35240 | 0.62 | 3.0E-57 | 11427757 | NT | Human farnesyl pyrophosphate synthetase mRNA, complete cds |
| 9060 | 22138 | 35682 | 5.14 | 3.0E-57 | 11545788 | EST_HUMAN | AU117659 HEMBA1 Homo sapiens cDNA clone HEMBA1001910 5' |
| 9451 | 22567 | 36132 | 0.89 | 3.0E-57 | 11545788 | NT | Homo sapiens hypothetical protein FLJ11658 (FLJ11658), mRNA |
| 9451 | 22567 | 36133 | 0.89 | 3.0E-57 | 11545788 | NT | Homo sapiens hypothetical protein FLJ11658 (FLJ11658), mRNA |
| 11148 | 24220 | 37847 | 2.34 | 3.0E-57 | AW248374.1 | EST_HUMAN | 2820473 Spriima NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2820473 5' |
| 12384 | 28167 | 31654 | 6.37 | 3.0E-57 | W23871.1 | EST_HUMAN | 2b45d11.1 Soares fetal lung_NbHL19W Homo sapiens cDNA clone IMAGE:306649 5' |
| 12982 | 25840 | 31984 | 1.17 | 3.0E-57 | AJ003649.1 | EST_HUMAN | AJ003649 Selected chromosome 21 cDNA library Homo sapiens cDNA clone MIP10-1L1 |
| 1530 | 14683 | 27762 | 2.89 | 2.0E-57 | AF249219.1 | NT | Homo sapiens SNARE protein kinase SNARE mRNA, complete cds |
| 1630 | 14683 | 27763 | 2.89 | 2.0E-57 | AF249219.1 | NT | Homo sapiens SNARE protein kinase SNARE mRNA, complete cds |
| 2780 | 15906 | 29014 | 5.5 | 2.0E-57 | AA845419.1 | EST_HUMAN | ak02b02.s1 Soares parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1404747 3' similar to contains Alu repetitive element; contains element MER22 repetitive element ; |
| 3525 | 16690 | | 1.4 | 2.0E-57 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 3641 | 16805 | 28818 | 0.72 | 2.0E-57 | R07702.1 | EST_HUMAN | ye98h01.1 Soares fetal liver spleen rNLS Homo sapiens cDNA clone IMAGE:125809 5' |
| 3641 | 16805 | 28819 | 0.72 | 2.0E-57 | R07702.1 | EST_HUMAN | ye98h01.1 Soares fetal liver spleen rNLS Homo sapiens cDNA clone IMAGE:125809 5' |
| 4304 | 17447 | 30433 | 0.71 | 2.0E-57 | AA018299.1 | EST_HUMAN | ze40c06.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:361460 5' |
| 4304 | 17447 | 30434 | 0.71 | 2.0E-57 | AA018299.1 | EST_HUMAN | ze40c06.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:361460 5' |
| 4632 | 17768 | 30749 | 7.42 | 2.0E-57 | AL163283.2 | NT | Homo sapiens chromosome 21 segment HS21C083 |
| 5785 | 18977 | | 1.48 | 2.0E-57 | AA016131.1 | EST_HUMAN | ze31c05.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:360584 5' similar to contains L1.13 L1 repetitive element ; |
| 6158 | 19334 | | 31.41 | 2.0E-57 | BF115286.1 | EST_HUMAN | 7n60704.x1 NCI_CGAP_Ov18 Homo sapiens cDNA clone IMAGE:3570966 3' similar to contains TAR1.t1 MER22 repetitive element ; |
| 6288 | 19461 | 32813 | 6.34 | 2.0E-57 | 11431281 | NT | Homo sapiens small inducible cytokine subfamily A (Cys-Cys), member 22 (SCYA22), mRNA |
| 8932 | 21911 | 35449 | 1.03 | 2.0E-57 | AF045452.1 | NT | Homo sapiens cell-line KGT transcriptional regulatory protein p64 mRNA, complete cds |
| 10051 | 23089 | 36891 | 1.08 | 2.0E-57 | AF057722.1 | NT | Homo sapiens 17-beta-hydroxysteroid dehydrogenase IV (HSD17B4) gene, exons 3 and 4 |

Page 330 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 11548 | 24604 | 38281 | 1.55 | 2.0E-57 | 11424084 | NT | Homo sapiens hypothetical protein FLJ20041 (FLJ20041), mRNA |
| 11548 | 24604 | 38282 | 1.55 | 2.0E-57 | 11424084 | NT | Homo sapiens hypothetical protein FLJ20041 (FLJ20041), mRNA |
| 11592 | 24645 | 38327 | 1.76 | 2.0E-57 | AJ245503.1 | NT | Homo sapiens partial mRNA for PEX5 related protein |
| 11592 | 24645 | 38328 | 1.76 | 2.0E-57 | AJ245503.1 | NT | Homo sapiens partial mRNA for PEX5 related protein |
| 13214 | 26097 | 31664 | 2.69 | 2.0E-57 | AF008668.1 | NT | Multiple sclerosis associated retrovirus polyprotein (pol) mRNA, partial cds |
| 2305 | 15437 | 28569 | 1.89 | 1.0E-57 | AW603208.1 | EST_HUMAN | UI-HF-BNO-akt-g-07-0-UJ.1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078348 5' |
| 8891 | 21970 | | 1.87 | 1.0E-57 | BE043031.1 | EST_HUMAN | HYPOTHETICAL 9.3 KD PROTEIN; hcs2a08.x1 NCL CGAP_LJ24 Homo sapiens cDNA clone IMAGE:3039062 3' similar to TR:O00246 O00246 |
| 12645 | 25369 | | 11.28 | 1.0E-57 | BE043031.1 | EST_HUMAN | hcs3d06.x1 NCL CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2876499 3' similar to contains THR.b3 |
| 6794 | 18995 | 32288 | 0.93 | 9.0E-58 | AA297847.1 | EST_HUMAN | THR repetitive element; |
| 12854 | 25507 | 31950 | 1.94 | 9.0E-58 | BE395061.1 | EST_HUMAN | EST11348 Uterus Homo sapiens cDNA 5' end |
| 602 | 13791 | | 1.98 | 8.0E-58 | BE68716.1 | EST_HUMAN | 601309466F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3631000 5' |
| 671 | 13857 | 26886 | 4.24 | 8.0E-58 | AI798376.1 | EST_HUMAN | B01445948F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3650211 5' |
| 671 | 13857 | 26887 | 4.24 | 8.0E-58 | AI798376.1 | EST_HUMAN | t34b07.x1 NCL CGAP_Ov23 Homo sapiens cDNA clone IMAGE:2220181 3' similar to TR:O15475 O15475 |
| 1804 | 15047 | 28157 | 2.4 | 8.0E-58 | 11434921 | NT | UNNAMED HERV-H PROTEIN; |
| 1804 | 15047 | 28156 | 2.4 | 8.0E-58 | 11434921 | NT | Homo sapiens putative protein O-mannosyltransferase (POMT2), mRNA |
| 3040 | 15218 | | 2.76 | 8.0E-58 | 7706132 | NT | Homo sapiens DHHC1 protein (LOC51304), mRNA |
| 7387 | 20465 | 33930 | 0.93 | 7.0E-58 | BE561971.1 | EST_HUMAN | Homo sapiens DHHC1 protein (LOC51304), mRNA |
| 11095 | 24189 | | 4.54 | 7.0E-58 | 5174542 | NT | 801346704F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3887577 5' |
| 11170 | 24241 | 37873 | 2.61 | 7.0E-58 | AW504109.1 | EST_HUMAN | Homo sapiens MADS box transcription enhancer factor 2, polypeptide B (myocyte enhancer factor 2B) (MEF2B) mRNA |
| 11170 | 24241 | 37874 | 2.61 | 7.0E-58 | AW504109.1 | EST_HUMAN | UI-HF-BNO-akt-g-10-0-UJ.1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3079867 5' |
| 2328 | 15460 | 28593 | 1.53 | 6.0E-58 | BE395061.1 | EST_HUMAN | UI-HF-BNO-akt-g-10-0-UJ.1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3079867 5' |
| 2448 | 15578 | 28709 | 6.25 | 6.0E-58 | AU130689.1 | EST_HUMAN | 801309466F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3631000 5' |
| 2898 | 16142 | 29160 | 1.04 | 6.0E-58 | BE242150.1 | EST_HUMAN | AU130689 N72P3 Homo sapiens cDNA clone NT2RP3001263 5' |
| 2898 | 16142 | 29161 | 1.01 | 6.0E-58 | BE242150.1 | EST_HUMAN | TCAAP1E1219 Pediatric acute myelogenous leukemia cell (FAB M1) Baylor-HGSC project=TCAA Homo sapiens cDNA clone TCAAP1219 |
| 6298 | 19472 | 32827 | 0.98 | 6.0E-58 | AF106911.1 | NT | TCAAP1E1219 Pediatric acute myelogenous leukemia cell (FAB M1) Baylor-HGSC project=TCAA Homo sapiens cDNA clone TCAAP1219 |
| 10517 | 23552 | 37163 | 1.27 | 8.0E-58 | 11434746 | NT | Homo sapiens chemokine MIP-2 gamma (MIP-2 gamma) mRNA, complete cds |
| 12854 | 25434 | | 1.22 | 6.0E-58 | 11526291 | NT | Homo sapiens protein tyrosine phosphatase, non-receptor type 21 (PTPN21), mRNA |
| | | | | | | | Homo sapiens hypothetical protein FLJ20454 (FLJ20454), mRNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 311 | 13527 | 26960 | 3.08 | 5.0E-58 | 4507334 | NT | Homo sapiens synaptotagmin 1 (SYNJ1), mRNA |
| 728 | 13610 | 26950 | 6.96 | 5.0E-58 | BE763984.1 | EST_HUMAN | RC4-NT0057-160600-016-b05 NT0057 Homo sapiens cDNA |
| 1221 | 14382 | 27442 | 2.9 | 6.0E-58 | AW797948.1 | EST_HUMAN | GM3-UM0043-240300-127-e07 UM0043 Homo sapiens cDNA |
| 1221 | 14382 | 27443 | 2.9 | 5.0E-58 | AW797948.1 | EST_HUMAN | GM3-UM0043-240300-127-e07 UM0043 Homo sapiens cDNA |
| 1222 | 14382 | 27442 | 2 | 5.0E-58 | AW797948.1 | EST_HUMAN | GM3-UM0043-240300-127-e07 UM0043 Homo sapiens cDNA |
| 1222 | 14382 | 27443 | 2 | 5.0E-58 | AW797948.1 | EST_HUMAN | GM3-UM0043-240300-127-e07 UM0043 Homo sapiens cDNA |
| 3400 | 16570 | 26685 | 4.09 | 5.0E-58 | AA988183.1 | EST_HUMAN | α98e07.s1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1603908.3 |
| 4373 | 17516 | 30496 | 0.93 | 5.0E-58 | AI638745.1 | EST_HUMAN | ts89e07.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2238488.3 similar to SW-PRO2_ACACA |
| 5748 | 18938 | 32834 | 1.91 | 5.0E-58 | 11486282 | NT | P19984 PROFILIN II: |
| 6307 | 19479 | 32834 | 8.55 | 5.0E-58 | H23072.1 | EST_HUMAN | Homo sapiens placenta-specific 1 (PLAG1), mRNA |
| 6524 | 19686 | 33063 | 0.79 | 5.0E-58 | AL163285.2 | NT | Ym5TH07.r1 Soares infant brain T1B1B Homo sapiens cDNA clone IMAGE:52071.5 |
| 6800 | 19760 | 33148 | 1.03 | 5.0E-58 | 11421330 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 6917 | 20232 | 33665 | 0.6 | 5.0E-58 | AF051334.1 | NT | Homo sapiens apical protein, Xenopus laevis-like (APXL), mRNA |
| 7255 | 20338 | 33788 | 0.71 | 5.0E-58 | AF051334.1 | NT | Homo sapiens nibrin (NBS) mRNA, complete cds |
| 8166 | 21238 | 34759 | 9.08 | 5.0E-58 | 89226933 | NT | Homo sapiens nibrin (NBS) mRNA, complete cds |
| 8648 | 21629 | 35167 | 0.68 | 5.0E-58 | AB049837.1 | NT | Homo sapiens holocytochrome c synthase (cytochrome c heme-lyase) (HCCS) mRNA |
| 10061 | 23099 | 36701 | 0.96 | 5.0E-58 | 11430647 | NT | Homo sapiens hypothetical protein FLJ10826 (FLJ10826), mRNA |
| 10328 | 23363 | 36973 | 1.8 | 5.0E-58 | AL163218.2 | NT | Homo sapiens pre-mRNA splicing factor similar to S. cerevisiae Prp18 (PRP18), mRNA |
| 10812 | 23846 | 37254 | 0.65 | 5.0E-58 | AB014511.1 | NT | Homo sapiens chromosome 21 segment HS21C018 |
| 10612 | 23846 | 37255 | 0.65 | 5.0E-58 | AB014511.1 | NT | Homo sapiens mRNA for KIAA0611 protein, partial cds |
| 12362 | 26066 | | 4.5 | 5.0E-58 | 11626293 | NT | Homo sapiens mRNA for KIAA0611 protein, partial cds |
| 12850 | 26102 | | 1.47 | 5.0E-58 | 11426423 | NT | Homo sapiens cat eye syndrome chromosome region, candidate 1 (CECR1), mRNA |
| 384 | 13592 | 26627 | 1.71 | 4.0E-58 | 4502302 | NT | Homo sapiens ATP synthase, H+ transporting, mitochondrial F1 complex, O subunit (oligomycin sensitivity |
| 819 | 13898 | 27052 | 1.87 | 4.0E-58 | 4504634 | NT | conferring protein) (ATP5O) mRNA |
| 1498 | 14649 | 27731 | 1.24 | 4.0E-58 | 4503648 | NT | Homo sapiens interleukin 10 receptor, beta (L10RB), mRNA |
| 2696 | 15816 | 28930 | 2.12 | 4.0E-58 | U36251.1 | NT | Homo sapiens coagulation factor IX (plasma thromboplastin component, Christmas disease, hemophilia B) |
| 3402 | 18572 | 28587 | 1.41 | 4.0E-58 | D16470.1 | NT | (F9) mRNA |
| 3834 | 18994 | 28996 | 1 | 4.0E-58 | 5031660 | NT | Human beta-prime-adaptin (BAM22) gene, exon 3 |
| 7995 | 21045 | 34557 | 0.88 | 4.0E-58 | BE463857.1 | EST_HUMAN | Human mRNA, Xq terminal portion |
| 11624 | 24575 | 38366 | 7.44 | 4.0E-58 | 11424059 | NT | Homo sapiens EGF-like repeats and discoidin-like domains 3 (EDIL3), mRNA |

Page 332 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 345 | 13558 | | 0.86 | 3.0E-58 | R17878.1 | EST_HUMAN | ygl0602r1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:31693 5' |
| 1420 | 14574 | 27647 | 2.8 | 3.0E-58 | 4758981 | NT | Homo sapiens peptide YY (PYY) mRNA |
| 3246 | 16420 | 29435 | 3.07 | 3.0E-58 | BF568848.1 | EST_HUMAN | 602185789F1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4309943 5' |
| 3246 | 16420 | 29438 | 3.07 | 3.0E-58 | BF568848.1 | EST_HUMAN | 602185789F1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4309943 5' |
| 6390 | 18559 | 32918 | 0.61 | 3.0E-58 | BE089509.1 | EST_HUMAN | QV0-870702-170400-164-109 B10702 Homo sapiens cDNA |
| 6574 | 18736 | 33115 | 1.1 | 3.0E-58 | F07056.1 | EST_HUMAN | HSC1TG081 normalized infant brain cDNA Homo sapiens cDNA clone c-11g08 |
| 6778 | 19933 | 33329 | 2.49 | 3.0E-58 | AV712977.1 | EST_HUMAN | AV712977 DCA Homo sapiens cDNA clone DCAAZG04 5' |
| 983 | 14136 | 27197 | 12.47 | 2.0E-58 | AF068624.1 | NT | Homo sapiens 5-aminolevulinate synthase 2 (ALAS2) gene, complete cds |
| 1318 | 14474 | | 7.88 | 2.0E-58 | BE208532.1 | EST_HUMAN | bio08b07.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823733 5' similar to gb:K69391.60S RIBOSOMAL PROTEIN L6 (HUMAN); gb:X81987 M.musculus mRNA for TAX responsive element binding protein (MOUSE); |
| 5461 | 18651 | 31630 | 0.94 | 2.0E-58 | AW074831.1 | EST_HUMAN | xa08a08.x1 Soares NFL_I_GBC_S1 Homo sapiens cDNA clone IMAGE:2567704 3' |
| 5473 | 25805 | 31652 | 2.53 | 2.0E-58 | BE907186.1 | EST_HUMAN | 600149896F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3901911 5' |
| 5473 | 25805 | 31655 | 2.53 | 2.0E-58 | BE907186.1 | EST_HUMAN | 600149896F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3901911 5' |
| 6182 | 18358 | 32708 | 1.7 | 2.0E-58 | BF513488.1 | EST_HUMAN | UI-H-BW1-ams-g-11-0.U1.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3071060 3' |
| 6249 | 19423 | 32769 | 2.16 | 2.0E-58 | AI124874.1 | EST_HUMAN | am57602.x1 Johnston frontal cortex Homo sapiens cDNA clone IMAGE:1636674 3' similar to WP.2K328.1 CE05065 UBIQUITIN CONJUGATING ENZYME1; RECOVERIN SUBFAMILY OF EF-HAND CALCIUM BINDING PROTEIN ; |
| 6283 | 19456 | 32806 | 0.83 | 2.0E-58 | R92587.1 | EST_HUMAN | yo08h06.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:196379 5' |
| 7066 | 20119 | 33533 | 0.83 | 2.0E-58 | AI291407.1 | EST_HUMAN | qm84c01.x1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1895424 3' |
| 7307 | 20389 | 33848 | 2.79 | 2.0E-58 | AF134838.1 | NT | Homo sapiens endocytic receptor Endo180 (ENDO180) mRNA, complete cds |
| 7307 | 20389 | 33849 | 2.79 | 2.0E-58 | AF134838.1 | NT | Homo sapiens endocytic receptor Endo180 (ENDO180) mRNA, complete cds |
| 10979 | 24068 | 37692 | 18.01 | 2.0E-58 | BF307745.1 | EST_HUMAN | hm25f08.x1 NCI_CGAP_17 Homo sapiens cDNA clone IMAGE:4131891 5' |
| 11207 | 24276 | 37913 | 1.68 | 2.0E-58 | AW872941.1 | EST_HUMAN | hm25f08.x1 NCI_CGAP_Thy4 Homo sapiens cDNA clone IMAGE:3013671 3' |
| 740 | 13922 | 26892 | 1.06 | 1.0E-58 | M66134.1 | NT | Human complement component C5 mRNA, 3' end |
| 1093 | 14258 | 27314 | 1.33 | 1.0E-58 | 6274549 | NT | Homo sapiens NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 9 (22kD, B22) (NDUFB9), mRNA |
| 1358 | 14513 | 27586 | 1.12 | 1.0E-58 | AW937182.1 | EST_HUMAN | EST369252 MAGC resequences, MAGD Homo sapiens cDNA |
| 1358 | 14513 | 27687 | 1.12 | 1.0E-58 | AW937182.1 | EST_HUMAN | EST369252 MAGC resequences, MAGD Homo sapiens cDNA |
| 1427 | 14581 | 27654 | 2.8 | 1.0E-58 | AJ238093.1 | NT | Homo sapiens partial AF-4 gene, exons 2 to 7 and Alu repeat elements |
| 1697 | 14849 | 27835 | 1.28 | 1.0E-58 | BE466132.1 | EST_HUMAN | hy10f08.x1 NCI_CGAP_G06 Homo sapiens cDNA clone IMAGE:3196935 3' |
| 2719 | 15837 | 28947 | 1.01 | 1.0E-58 | AF217514.1 | NT | Homo sapiens uncharacterized bone marrow protein BM038 mRNA, complete cds |
| 2863 | 15877 | 29087 | 1.14 | 1.0E-58 | 4759169 | NT | Homo sapiens steroid regulatory element binding transcription factor 2 (SREBF2) mRNA |
| 2892 | 15206 | 28322 | 1.01 | 1.0E-58 | 5174444 | NT | Homo sapiens G protein-coupled receptor 68A (GPR68A) mRNA |

Page 333 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 3627 | 16781 | 20809 | 0.93 | 1.0E-58 | 4756081 | NT | Homo sapiens chondroitin sulfate proteoglycan 2 (versican) (CSPG2) mRNA |
| 3627 | 16781 | 20810 | 0.93 | 1.0E-58 | 4756081 | NT | Homo sapiens chondroitin sulfate proteoglycan 2 (versican) (CSPG2) mRNA |
| 3614 | 19974 | 29977 | 0.66 | 1.0E-58 | 4507628 | NT | Homo sapiens transition protein 1 (during histone to protamine replacement) (TNPT1) mRNA |
| 6085 | 18213 | 31168 | 7.13 | 1.0E-58 | A1141063.1 | EST_HUMAN | ox43h01.x1 Soares_NhHMPU_S1 Homo sapiens cDNA clone IMAGE:1678129 3' |
| 6864 | 19150 | 32465 | 1.37 | 1.0E-58 | BE061860.1 | EST_HUMAN | RC1-BT0254-290100-015-001 BT0254 Homo sapiens cDNA |
| 7002 | 20138 | 33556 | 0.87 | 1.0E-58 | 11422031 | NT | Homo sapiens hypothetical protein (LOC51260), mRNA |
| 8305 | 21387 | 35695 | 0.49 | 1.0E-58 | AW973537.1 | EST_HUMAN | EST385637 MAGE resequences, MAGM Homo sapiens cDNA |
| 8070 | 22149 | 35695 | 0.62 | 1.0E-58 | 4505314 | NT | Homo sapiens myomesin (M-protein) 2 (165kD) (MYOM2), mRNA |
| 9182 | 22260 | 35802 | 0.77 | 1.0E-58 | AV751001.1 | EST_HUMAN | AV751001 NPC Homo sapiens cDNA clone NPCACH09 5' |
| 9282 | 22358 | 35907 | 0.64 | 1.0E-58 | AA412397.1 | EST_HUMAN | z89105.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:730497 5' |
| 9282 | 22358 | 35908 | 0.64 | 1.0E-58 | AA412397.1 | EST_HUMAN | z89105.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:730497 5' |
| 10389 | 23424 | 37031 | 0.85 | 1.0E-58 | 11432994 | NT | Homo sapiens disc, large (Drosophila) homolog 2 (chapsyn-110) (DLG2), mRNA |
| 12074 | 25055 | | 2.1 | 1.0E-58 | X63392.1 | NT | Human immunoglobulin kappa light chain variable region L14 |
| 12100 | 25080 | 38787 | 2.61 | 1.0E-58 | D61405.1 | NT | Human MSH3 gene, exon10 |
| 2303 | 16435 | 28587 | 53.38 | 8.0E-59 | 4507378 | NT | Homo sapiens TATA box binding protein (TBP) mRNA |
| 6979 | 20207 | 33635 | 0.74 | 8.0E-59 | AA382291.1 | EST_HUMAN | EST95683 Testis I Homo sapiens cDNA 5' end |
| 6979 | 20207 | 33636 | 0.74 | 8.0E-59 | AA382291.1 | EST_HUMAN | EST95683 Testis I Homo sapiens cDNA 5' end |
| 8374 | 21455 | 34879 | 1.66 | 8.0E-59 | A1761983.1 | EST_HUMAN | wt50408.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2384171 3' |
| 182 | 16006 | | 1.97 | 6.0E-59 | BF035327.1 | EST_HUMAN | 601488531F1 NIH_MGC_96 Homo sapiens cDNA clone IMAGE:3862086 5' |
| 8015 | 21068 | 34579 | 0.62 | 6.0E-59 | AA962431.1 | EST_HUMAN | om81a04.s1 NCL_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1553550 3' similar to TR.Q13732 Q13732 SA GENE PRODUCT PRECURSOR.; |
| 8440 | 21521 | 35050 | 0.69 | 6.0E-59 | A1750970.1 | EST_HUMAN | cn08h02.y1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBC_cn08h02 random |
| 3197 | 16372 | 28379 | 7.75 | 5.0E-59 | A1807484.1 | EST_HUMAN | wt48611.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2368836 3' |
| 4780 | 17915 | 30601 | 9.94 | 5.0E-59 | X83497.1 | NT | H.sapiens DNA for ZNF80-linked ERV9 long terminal repeat |
| 7129 | 18555 | 31470 | 8.22 | 5.0E-59 | AW162304.1 | EST_HUMAN | au186c07.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2781228 3' similar to contains element TAR1 repetitive element; |
| 9006 | 22085 | 35628 | 1.03 | 5.0E-59 | 11421778 | NT | Homo sapiens polymerase (RNA) III (DNA directed) (39kD) (RPC39), mRNA |
| 9906 | 22946 | 36532 | 1.44 | 5.0E-59 | AV762869.1 | EST_HUMAN | AV762869 MDS Homo sapiens cDNA clone MDSEIC12 5' |
| 11146 | 24218 | 37845 | 4.54 | 5.0E-59 | 11434908 | NT | Homo sapiens hypothetical protein (LOC57149), mRNA |
| 816 | 13995 | 27050 | 1.9 | 4.0E-59 | D80006.1 | NT | Human mRNA for KIAA0184 gene, partial cds |
| 1266 | 14423 | 27489 | 0.61 | 4.0E-59 | 4805818 | NT | Homo sapiens phosphatidylinositol-4-phosphate 5-kinase, type II, beta (PIP5K2B) mRNA, and translated products |

Page 334 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|-----------------------------|-------------------------------|--|
| 1298 | 14423 | 27490 | 0.91 | 4.0E-59 | 4505818 | NT | Homo sapiens phosphatidylinositol 4-phosphate 5-kinase, type II, beta (PIP5K2B) mRNA, and translated products |
| 4912 | 18042 | 31032 | 1.14 | 4.0E-59 | 4506758 | NT | Homo sapiens ryanodine receptor 3 (RyR3) mRNA |
| 4912 | 18042 | 31033 | 1.14 | 4.0E-59 | 4506758 | NT | Homo sapiens ryanodine receptor 3 (RyR3) mRNA |
| 5654 | 18848 | 32130 | 0.95 | 4.0E-59 | 11034810 | NT | Homo sapiens catenin (cadherin-associated protein), delta 2 (neural plakophilin-related arm-repeat protein) (CTNND2), mRNA |
| 12498 | 25986 | | 3.99 | 4.0E-59 | AF057720.1 | NT | Homo sapiens 17-beta-hydroxysteroid dehydrogenase IV (HSD17B4) gene, promoter region and exon 1 |
| 10 | 13248 | | 6.74 | 3.0E-59 | AW965524.1 | EST_HUMAN | EST377582 MAGI resequences, MAGI Homo sapiens cDNA |
| 234 | 13455 | 26481 | 3.89 | 3.0E-59 | 7692247 | NT | Homo sapiens KIAA0080 gene product (KIAA0080), mRNA |
| 1748 | 14897 | 27992 | 10.81 | 3.0E-59 | 4505860 | NT | Homo sapiens plasmidogen activator, tissue (PLATa) mRNA |
| 1748 | 14897 | 27993 | 10.81 | 3.0E-59 | 4505860 | NT | Homo sapiens plasmidogen activator, tissue (PLATa) mRNA |
| 2189 | 15333 | 28459 | 8.54 | 3.0E-59 | AB029035.1 | NT | Homo sapiens mRNA for KIAA1112 protein, partial cds |
| 2195 | 15333 | 28460 | 8.54 | 3.0E-59 | AB029035.1 | NT | Homo sapiens mRNA for KIAA1112 protein, partial cds |
| 3104 | 16280 | 29294 | 0.67 | 3.0E-59 | T18895.1 | EST_HUMAN | h020171 Testis 1 Homo sapiens cDNA clone h02017 5' end |
| 3104 | 16280 | 29295 | 0.67 | 3.0E-59 | T18895.1 | EST_HUMAN | h020171 Testis 1 Homo sapiens cDNA clone h02017 5' end |
| 3189 | 16374 | 29393 | 4.27 | 3.0E-59 | 4502014 | NT | Homo sapiens A kinase (PRKA) anchor protein 1 (AKAP1), mRNA |
| 3199 | 16374 | 29394 | 4.27 | 3.0E-59 | 4502014 | NT | Homo sapiens A kinase (PRKA) anchor protein 1 (AKAP1), mRNA |
| 3930 | 17089 | 30088 | 1.19 | 3.0E-59 | 4508044 | NT | Homo sapiens zona pellucida glycoprotein 2 (spem receptor) (ZP2) mRNA |
| 4803 | 17942 | 30929 | 2.75 | 3.0E-59 | AL163284.2 | NT | Homo sapiens chromosome 21 segment H321C084 |
| 4965 | 18094 | 31071 | 2.12 | 3.0E-59 | 7427522 | NT | Homo sapiens protein tyrosine phosphatase, receptor type, T (PTPRT), mRNA |
| 5162 | 18284 | | 1.22 | 3.0E-59 | M95961.1 | NT | Human probenecid converting enzyme (NEC2) gene, exon 2 |
| 6350 | 19620 | 32877 | 2.4 | 3.0E-59 | 8924074 | NT | Homo sapiens nuclear receptor co-repressor 1 (NGOR1), mRNA |
| 7516 | 20589 | 34064 | 1.85 | 3.0E-59 | 5454137 | NT | Human mRNA for dbi proto-oncogene |
| 8116 | 21198 | 34718 | 1.11 | 3.0E-59 | X12556.1 | NT | Human mRNA for dbi proto-oncogene |
| 8116 | 21198 | 34719 | 1.11 | 3.0E-59 | X12556.1 | NT | Human mRNA for dbi proto-oncogene |
| 10250 | 23285 | 36880 | 1.04 | 3.0E-59 | X70251.1 | NT | H. sapiens CKII-alpha gene |
| 10250 | 23285 | 36881 | 1.04 | 3.0E-59 | X70251.1 | NT | H. sapiens CKII-alpha gene |
| 12635 | 25428 | | 11.11 | 3.0E-59 | 11417866 | NT | Homo sapiens gamma-glutamyltransferase-like activity 1 (GGTLA1), mRNA |
| 5940 | 20239 | | 0.59 | 2.0E-59 | AA470073.1 | EST_HUMAN | z98d05.s1 Soares, testis_NHT Homo sapiens cDNA clone IMAGE:730377 3' |
| 7216 | 20081 | 33494 | 0.59 | 2.0E-59 | AF135167.1 | NT | Homo sapiens interferon-induced protein p78 (MX1) gene, complete cds |
| 9937 | 28677 | | 4.84 | 2.0E-59 | AA309774.1 | EST_HUMAN | EST180633 Jurkat T-cells V Homo sapiens cDNA 5' end |
| 10746 | 23778 | | 1.34 | 2.0E-59 | BF355554.1 | EST_HUMAN | RCO-NT0039-100700-032-e07 NT0036 Homo sapiens cDNA |
| 11089 | 24144 | 37780 | 2.19 | 2.0E-59 | AW410698.1 | EST_HUMAN | h07h04.x1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2861654 5' |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 11089 | 24144 | 37781 | 2.19 | 2.0E-59 | AW410698.1 | EST_HUMAN | fr07h04.x1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2681654 5' |
| 12373 | 25268 | 32118 | 4.28 | 2.0E-59 | AI631809.1 | EST_HUMAN | we36c12.x1 NCI_CGAP_Kid111 Homo sapiens cDNA clone IMAGE:2300182 3' similar to TR:Q86542 |
| 12953 | 26019 | 31669 | 3.87 | 2.0E-59 | L11645.1 | NT | Q86542 RTVL-H PROTEIN, contains LTR7.b1 LTR7 repetitive element ; |
| 167 | 13382 | | 5.65 | 1.0E-59 | BE296411.1 | EST_HUMAN | Homo sapiens alpha-tubulin mRNA, complete cds |
| 1589 | 14722 | 27803 | 1.04 | 1.0E-59 | T92522.1 | EST_HUMAN | g01176757F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531927 5' |
| 2883 | 15903 | | 2.65 | 1.0E-59 | AA748488.1 | EST_HUMAN | y255c09.1 Stragene lung (#837210) Homo sapiens cDNA clone IMAGE:118768 5' similar to SP:S21348 |
| 7735 | 20796 | 34285 | 1.14 | 1.0E-59 | AJ130894.1 | NT | S21348 HYPOTHETICAL PROTEIN 4 - ; |
| 7895 | 20947 | 34454 | 1.3 | 1.0E-59 | BE256814.1 | EST_HUMAN | oa56h11.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1309028 3' similar to TR:Q13637 |
| 7895 | 20947 | 34455 | 1.3 | 1.0E-59 | BE256814.1 | EST_HUMAN | Q13637 MER37 TRANSCRIPTIONAL ELEMENT, COMPLETE CONSENSUS SEQUENCE. ; |
| 8583 | 22727 | 38290 | 0.88 | 1.0E-59 | 11410630 | NT | Homo sapiens mRNA for transcription factor |
| 9804 | 22844 | 38421 | 0.58 | 1.0E-59 | 11428949 | NT | g01111951F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3352892 5' |
| 9804 | 22844 | 38422 | 0.58 | 1.0E-59 | 11428949 | NT | g01111951F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3352892 5' |
| 11094 | 20788 | 34285 | 10.98 | 1.0E-59 | AJ130894.1 | NT | Homo sapiens zinc finger protein 275 (ZNF275), mRNA |
| 783 | 13983 | 27013 | 1.45 | 8.0E-60 | AW977845.1 | EST_HUMAN | Homo sapiens 3-hydroxyisobutyryl-Coenzyme A hydrolase (HIBCH), mRNA |
| 1499 | 14652 | 27734 | 3.21 | 8.0E-60 | 4759159 | NT | Homo sapiens 3-hydroxyisobutyryl-Coenzyme A hydrolase (HIBCH), mRNA |
| 2241 | 15374 | 28502 | 4.78 | 8.0E-60 | 5174656 | NT | Homo sapiens mRNA for transcription factor |
| 2241 | 15374 | 28503 | 4.78 | 8.0E-60 | 5174656 | NT | EST389849 MAGC resequences, MAGO Homo sapiens cDNA |
| 6103 | 19283 | 32616 | 1.16 | 8.0E-60 | AB022004.1 | NT | Homo sapiens small nuclear ribonucleoprotein D3 polypeptide (18kd) (SNRPD3) mRNA |
| 6633 | 19792 | 33181 | 0.89 | 8.0E-60 | S83182.1 | NT | Homo sapiens differentiation-related gene 1 (nickel-specific induction protein) (RTP) mRNA |
| 7874 | 20928 | 34434 | 0.89 | 8.0E-60 | 11420841 | NT | Homo sapiens differentiation-related gene 1 (nickel-specific induction protein) (RTP) mRNA |
| 8152 | 21234 | 34755 | 3 | 8.0E-60 | X17033.1 | NT | Homo sapiens mRNA for KIAA1081 protein, partial cds |
| 9139 | 22218 | 35762 | 2.83 | 8.0E-60 | 11428949 | NT | hyaluronan-binding protein=hepatocyte growth factor activator homolog [human, plasma, mRNA, 2408 nt] |
| 9671 | 22833 | 36202 | 0.78 | 8.0E-60 | 11417118 | NT | Homo sapiens phosphatase cytidyltransferase 1, choline, beta isoform (PCYT1B), mRNA |
| 9671 | 22833 | 36203 | 0.78 | 8.0E-60 | 11417118 | NT | Human mRNA for integrin alpha-2 subunit |
| 10789 | 23932 | 37455 | 0.62 | 8.0E-60 | 5453997 | NT | Homo sapiens S-arabinoside, retina and pineal gland (arrestin) (SAG), mRNA |
| 11071 | 24146 | 37783 | 4.17 | 8.0E-60 | AL163204.2 | NT | Homo sapiens KIAA0433 protein (KIAA0433), mRNA |
| 11071 | 24146 | 37784 | 4.17 | 8.0E-60 | AL163204.2 | NT | Homo sapiens KIAA0433 protein (KIAA0433), mRNA |
| 773 | 13954 | 27004 | 11.11 | 7.0E-60 | AF055066.1 | NT | Homo sapiens RAN binding protein 7 (RANBP7), mRNA |
| 774 | 13964 | 27004 | 25.11 | 7.0E-60 | AF055066.1 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 838 | 14016 | 27071 | 1.47 | 7.0E-60 | 4504634 | NT | Homo sapiens chromosome 21 segment HS21C004 |

Page 336 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 2187 | 15332 | 28468 | 1.82 | 7.0E-60 | AF077188.1 | NT | Homo sapiens cullin 4A (CUL4A) mRNA, complete cds |
| 2845 | 15969 | 29068 | 0.96 | 7.0E-60 | AB011153.1 | NT | Homo sapiens mRNA for KIAA0581 protein, partial cds |
| 4295 | 17438 | 30425 | 2.4 | 7.0E-60 | 4605488 | NT | Homo sapiens ornithine decarboxylase 1 (ODC1) mRNA |
| 4698 | 17833 | 30818 | 0.91 | 7.0E-60 | AF204750.1 | NT | Homo sapiens ALR-like protein mRNA, partial cds |
| 9607 | 22662 | 38235 | 4.21 | 7.0E-60 | H58041.1 | EST_HUMAN | Y1204.1 Scores fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:205087 5' similar to contains LTR6 repetitive element: |
| 11648 | 24725 | 38417 | 1.73 | 7.0E-60 | H58041.1 | EST_HUMAN | Y1204.1 Scores fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:205087 5' similar to contains LTR6 repetitive element: |
| 2248 | 16381 | 28509 | 1.16 | 9.0E-60 | BE984974.2 | EST_HUMAN | 601658751R1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3886069 3' |
| 8632 | 21712 | | 8.04 | 6.0E-60 | H52456.1 | EST_HUMAN | X178109.1 Scores fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:201963 5' similar to contains OFR repetitive element: |
| 86 | 13321 | 26348 | 1.06 | 5.0E-60 | A1807817.1 | EST_HUMAN | wf52c07.x1 Scores_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2359212 3' |
| 86 | 13321 | 26349 | 1.06 | 5.0E-60 | A1807817.1 | EST_HUMAN | wf52c07.x1 Scores_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2359212 3' |
| 2308 | 16440 | 28574 | 1.83 | 4.0E-60 | AW503208.1 | EST_HUMAN | U1HF-BND-akt-g-07-q-U1r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078348 5' |
| 2308 | 15440 | 28575 | 1.83 | 4.0E-60 | AW503208.1 | EST_HUMAN | U1HF-BND-akt-g-07-q-U1r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078348 5' |
| 3037 | 16213 | | 1.45 | 4.0E-60 | AA289037.1 | EST_HUMAN | EST11498 Ularus Homo sapiens cDNA 5' end similar to similar to retrovirus-related pd |
| 7508 | 20692 | 34066 | 0.78 | 4.0E-60 | BF198088.1 | EST_HUMAN | h81935.x1 NCL CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3134913 3' similar to SW:RHOP_MOUSE |
| 9326 | 22402 | | 0.65 | 4.0E-60 | AL163278.2 | NT | Q81085 GTP-RHO BINDING PROTEIN 1: |
| 1907 | 15050 | 28101 | 4.99 | 3.0E-60 | BE662811.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C078 |
| 1907 | 15050 | 28102 | 4.98 | 3.0E-60 | BE662811.1 | EST_HUMAN | 601336446F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3690395 5' |
| 1918 | 15081 | | 2.81 | 3.0E-60 | 6031180 | NT | 601338746F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3690395 5' |
| 4678 | 17716 | 30689 | 2.75 | 3.0E-60 | AJ271735.1 | NT | Homo sapiens prohibitin (PHB) mRNA |
| 5494 | 18693 | 31708 | 0.89 | 3.0E-60 | BF365143.1 | EST_HUMAN | Homo sapiens Xq pseudautosomal region: segment 1/2 |
| 5767 | 18948 | 32251 | 2.21 | 3.0E-60 | AW836198.1 | EST_HUMAN | QV4-NN1149-250900-423-01 NN1149 Homo sapiens cDNA |
| 7093 | 18520 | 31513 | 1.07 | 3.0E-60 | A1792814.1 | EST_HUMAN | RC3-LT0023-200100-012-a01 LT0023 Homo sapiens cDNA |
| 8597 | 21678 | 35215 | 4.59 | 3.0E-60 | 5174644 | NT | 6160111.y5 NCL CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1534053 5' similar to SW:UDP_MOUSE |
| 8597 | 21678 | 35216 | 4.59 | 3.0E-60 | 5174644 | NT | P52824 URIDINE PHOSPHORYLASE: |
| 8783 | 21862 | 35405 | 0.6 | 3.0E-60 | A1040235.1 | EST_HUMAN | Homo sapiens proline dehydrogenase (proline oxidase) (PRODH) mRNA |
| 8940 | 22019 | 35560 | 3.84 | 3.0E-60 | 5174644 | NT | Homo sapiens proline dehydrogenase (proline oxidase) (PRODH) mRNA |
| 13053 | 25058 | | 1.55 | 3.0E-60 | AA485286.1 | EST_HUMAN | Homo sapiens proline dehydrogenase (proline oxidase) (PRODH) mRNA ab07804.r1 Streptococcus (8937210) Homo sapiens cDNA clone IMAGE:840161 5' similar to contains LTR10.1 LTR10 repetitive element: |

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 31 | 13269 | 26273 | 1.7 | 2.0E-60 | AY08285.1 | NT | Homo sapiens solute carrier (SLC25A18) mRNA, complete cds; nuclear gene for mitochondrial product |
| 1455 | 14008 | 27688 | 3.99 | 2.0E-60 | Z11694.1 | NT | H. sapiens 41kDa protein kinase related to rat ERK2 |
| 1759 | 14908 | 28001 | 2.2 | 2.0E-60 | M24603.1 | NT | Human bcr protein mRNA, 5' end |
| 3659 | 16832 | 29843 | 0.78 | 2.0E-60 | 4757807 | NT | Homo sapiens v-ref murine sarcoma viral oncogene homolog B1 (BRAF) mRNA |
| 4025 | 17181 | 30180 | 0.73 | 2.0E-60 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 6430 | 19598 | 32964 | 0.85 | 2.0E-60 | AI791962.1 | EST_HUMAN | nm01112.6 NCI CGAP_C08 Homo sapiens cDNA clone IMAGE:1076495 5' similar to contains THR.11 THR repetitive element; |
| 6621 | 19781 | 33169 | 1.26 | 2.0E-60 | AF004877.1 | NT | Homo sapiens pro-alpha 2(I) collagen (COL1A2) gene, complete cds |
| 6855 | 20008 | 33418 | 1.08 | 2.0E-60 | AF157478.1 | NT | Homo sapiens DNA polymerase zeta catalytic subunit (REV3) mRNA, complete cds |
| 6989 | 18508 | 31524 | 2.15 | 2.0E-60 | 4503044 | NT | Homo sapiens corticotropin releasing hormone receptor 2 (CRHR2) mRNA |
| 6989 | 18508 | 31626 | 2.15 | 2.0E-60 | 4503044 | NT | Homo sapiens corticotropin releasing hormone receptor 2 (CRHR2) mRNA |
| 7259 | 20342 | 33763 | 8.18 | 2.0E-60 | AA311156.1 | EST_HUMAN | EST181949 Jurkat T-cells V Homo sapiens cDNA 5' end similar to similar to prollymosin, alpha |
| 7259 | 20342 | 33764 | 8.18 | 2.0E-60 | AA311159.1 | EST_HUMAN | EST181949 Jurkat T-cells V Homo sapiens cDNA 5' end similar to similar to prollymosin, alpha |
| 7259 | 20342 | 33764 | 8.18 | 2.0E-60 | AA311159.1 | EST_HUMAN | EST181949 Jurkat T-cells V Homo sapiens cDNA 5' end similar to similar to prollymosin, alpha |
| 7810 | 20865 | 34799 | 0.9 | 2.0E-60 | BF512808.1 | EST_HUMAN | UJH-BW1-arnu-c-02-Q-U1.1 NCI CGAP Sub7 Homo sapiens cDNA clone IMAGE:3071210 3' |
| 8194 | 21278 | 34799 | 1.33 | 2.0E-60 | X85597.1 | EST_HUMAN | HS15BEST human adult testis Homo sapiens cDNA clone CAM_1EST15 |
| 9068 | 22147 | 36694 | 3.12 | 2.0E-60 | L36033.1 | NT | Human pre-B cell stimulating factor homologue (SDF1b) mRNA, complete cds |
| 10183 | 23220 | 36813 | 1.83 | 2.0E-60 | 11991659 | NT | Homo sapiens serpin domain, transmembrane domain (TM), and cytoplasmic domain, (semaphorin) 6A (SEMA6A), mRNA |
| 10183 | 23220 | 36814 | 1.83 | 2.0E-60 | 11991659 | NT | Homo sapiens serpin domain, transmembrane domain (TM), and cytoplasmic domain, (semaphorin) 6A (SEMA6A), mRNA |
| 11759 | 23945 | 37572 | 1.7 | 2.0E-60 | 11434729 | NT | Homo sapiens ribosomal protein S6 kinase, 90kD, polypeptide 5 (RPS6KA5), mRNA |
| 12672 | 23448 | | 2.36 | 2.0E-60 | 11418102 | NT | Homo sapiens non-histone chromosome protein 2 (S. cerevisiae)-like 1 (NHP2L1), mRNA |
| 12829 | 23985 | | 1.47 | 2.0E-60 | AF068757.1 | NT | Homo sapiens somatostatin receptor subtype 3 (SSTR3) gene, 5' flanking region and partial cds |
| 12848 | 25664 | | 1.5 | 2.0E-60 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 535 | 13728 | 26752 | 1.02 | 1.0E-60 | BE178586.1 | EST_HUMAN | PM3-HT0605-27020-001-c08 HT0605 Homo sapiens cDNA |
| 4011 | 17168 | 30176 | 1.08 | 1.0E-60 | AU143388.1 | EST_HUMAN | AU143389 Y79AA1 Homo sapiens cDNA clone Y79AA1001854 5' |
| 5070 | 18188 | 31172 | 2.57 | 1.0E-60 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 8134 | 21216 | 34737 | 1.39 | 1.0E-60 | BE064410.1 | EST_HUMAN | RC4-BT0311-141189-011-h09 BT0311 Homo sapiens cDNA |
| 8955 | 22034 | | 2.84 | 1.0E-60 | AA244041.1 | EST_HUMAN | nc04et12.1 NCI CGAP_P1 Homo sapiens cDNA clone IMAGE:1007182 similar to contains L1.11 L1 repetitive element; |
| 8982 | 22081 | 35601 | 1.35 | 1.0E-60 | AV754081.1 | EST_HUMAN | AV754081 TP Homo sapiens cDNA clone TP6AED05 5' |
| 12606 | 26079 | | 1.49 | 1.0E-60 | AJ262313.1 | NT | Homo sapiens genomic hybrid Rhesus box |
| 1123 | 14288 | 27343 | 8.4 | 9.0E-61 | AU118344.1 | EST_HUMAN | AU118344 HEMBA1 Homo sapiens cDNA clone HEMBA1005583 5' |

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8908 | 21987 | 35528 | 0.53 | 9.0E-61 | 4885548 | NT | Homo sapiens PHD finger protein 2 (PHF2) mRNA |
| 8908 | 21987 | 35527 | 0.53 | 9.0E-61 | 4885548 | NT | Homo sapiens PHD finger protein 2 (PHF2) mRNA |
| 2735 | 15852 | 28865 | 1.41 | 8.0E-61 | AW006478.1 | EST_HUMAN | w05510.x1 NCI_CGAP_Cc3 Homo sapiens cDNA clone IMAGE:2506555 3' |
| 2735 | 15852 | 28866 | 1.41 | 8.0E-61 | AW006478.1 | EST_HUMAN | w05510.x1 NCI_CGAP_Cc3 Homo sapiens cDNA clone IMAGE:2506555 3' |
| 3010 | 16192 | | 2.63 | 8.0E-61 | X57147.1 | NT | Human endogenous retrovirus pHE-1 (ERV9) |
| 8078 | 21161 | 34679 | 1.03 | 8.0E-61 | AA583988.1 | EST_HUMAN | m59g06.s1 NCI_CGAP_Lar1 Homo sapiens cDNA clone IMAGE:1088218 3' |
| 130 | 13357 | 26389 | 0.78 | 7.0E-61 | 7706870 | NT | Homo sapiens PXR2b protein (PXR2b), mRNA |
| 130 | 13357 | 26390 | 0.78 | 7.0E-61 | 7706870 | NT | Homo sapiens PXR2b protein (PXR2b), mRNA |
| 276 | 13494 | 26524 | 3.08 | 6.0E-61 | BE408310.1 | EST_HUMAN | 601300938F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3635480 5' |
| 894 | 14012 | 27088 | 6.49 | 6.0E-61 | BE408310.1 | EST_HUMAN | 601300938F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3635480 5' |
| 1352 | 14507 | 27579 | 12.72 | 6.0E-61 | AF119880.1 | NT | Homo sapiens PRO2014 mRNA, complete cds |
| 1659 | 14811 | 27896 | 1.04 | 6.0E-61 | BE257400.1 | EST_HUMAN | 601109238F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3350145 5' |
| 1659 | 14811 | 27916 | 2.91 | 6.0E-61 | AA699033.1 | EST_HUMAN | m66n09.s1 NCI_CGAP_Lar1 Homo sapiens cDNA clone IMAGE:1088897 3' |
| 3381 | 16553 | 29667 | 8.16 | 6.0E-61 | AU130689.1 | EST_HUMAN | AU130689 NT2RP3 Homo sapiens cDNA clone NT2RP3001263 5' |
| 6155 | 19331 | 32877 | 2.96 | 6.0E-61 | S79249.1 | NT | Ig-beta/B29=CD70b (alternatively spliced) [human, B cells, mRNA Partial, 375 nt] |
| 7497 | 20572 | 34045 | 1.49 | 6.0E-61 | U24498.1 | NT | Human autosomal dominant polycystic kidney disease protein 1 (PKD1) gene |
| 7795 | 20851 | 34343 | 1.85 | 6.0E-61 | AF035737.1 | NT | Homo sapiens general transcription factor 2-4 (GTF2) mRNA, complete cds |
| 12584 | 14012 | 27088 | 1.68 | 6.0E-61 | BE408310.1 | EST_HUMAN | 601300938F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3635480 5' |
| 13157 | 25752 | 31925 | 1.42 | 6.0E-61 | U07000.1 | NT | Human breakpoint cluster region (BCR) gene, complete cds |
| 226 | 13448 | 26478 | 2.54 | 6.0E-61 | 8922950 | NT | Homo sapiens hypothetical protein FLJ11316 (FLJ11316), mRNA |
| 226 | 13448 | 26477 | 2.54 | 6.0E-61 | 8922950 | NT | Homo sapiens hypothetical protein FLJ11316 (FLJ11316), mRNA |
| 370 | 13578 | 26812 | 0.7 | 6.0E-61 | 4507600 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 1713 | 14884 | 27853 | 2.84 | 6.0E-61 | 4506008 | NT | Homo sapiens protein phosphatase 1, regulatory subunit 10 (PPP1R10) mRNA |
| 3101 | 19277 | 29291 | 2.19 | 6.0E-61 | AL163279.2 | NT | Homo sapiens chromosome 21 segment HS21C079 |
| 3268 | 15442 | 29482 | 1.82 | 6.0E-61 | 4502168 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease resistant, Alzheimer disease) (APP), mRNA |
| 4090 | 17245 | | 2.22 | 6.0E-61 | AJ229041.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3 |
| 5118 | 13579 | 26812 | 0.75 | 6.0E-61 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 1798 | 14947 | 28039 | 1.94 | 4.0E-61 | AU140307.1 | EST_HUMAN | AU140307 PLAGE2 Homo sapiens cDNA clone PLAGE2000302 5' |
| 5935 | 19122 | 32436 | 0.71 | 4.0E-61 | 7661637 | NT | Homo sapiens DKFZP566B023 protein (DKFZP566B023), mRNA |
| 12349 | 26252 | | 9.47 | 4.0E-61 | AV731140.1 | EST_HUMAN | AV731140 HTF Homo sapiens cDNA clone HTFAR801 5' |
| 8018 | 21696 | 35234 | 0.7 | 3.0E-61 | AF150190.1 | EST_HUMAN | AF150190 Human mRNA from cd34+ stem cells Homo sapiens cDNA clone CBDA8B04 |
| 511 | 13703 | 26733 | 1.8 | 2.0E-61 | 8922829 | NT | Homo sapiens hypothetical protein FLJ11026 (FLJ11026), mRNA |
| 1239 | 14393 | 27480 | 5.33 | 2.0E-61 | BE168410.1 | EST_HUMAN | QV3-HT0513-060400-147-d01 HT0513 Homo sapiens cDNA |

Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 1239 | 14398 | 27481 | 5.33 | 2.0E-61 | BE188410.1 | EST_HUMAN | QV3-HT0513-060400-147-401 HT0513 Homo sapiens cDNA |
| 1899 | 14851 | 27638 | 1.36 | 2.0E-61 | N53039.1 | EST_HUMAN | W53d11.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:248453 3' similar to gbL25444.60S RIBOSOMAL PROTEIN L35A (HUMAN); |
| 2706 | 15824 | | 1.72 | 2.0E-61 | N39397.1 | EST_HUMAN | W03f11.r1 Soares melanocyte 2Nbr1M Homo sapiens cDNA clone IMAGE:270189 5' Homo sapiens ATPase, H ⁺ transporting, lysosomal (vacuolar proton pump) non-catalytic accessory protein 1A (110/116kD) (ATP6N1A), mRNA |
| 6596 | 19718 | 33094 | 0.88 | 2.0E-61 | 11428166 | NT | AV694317 GK Homo sapiens cDNA clone GKCELG09 5' |
| 9217 | 22285 | 35639 | 1.67 | 2.0E-61 | AV694317.1 | EST_HUMAN | Homo sapiens mRNA for KIAA0638 protein, partial cds |
| 9762 | 22700 | | 0.98 | 2.0E-61 | AB011108.1 | NT | UI-HF-BN0-akd-12-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3076774 5' |
| 10126 | 23164 | 36763 | 1.34 | 2.0E-61 | AW500256.1 | EST_HUMAN | Homo sapiens polymerase (RNA) III (DNA directed) (39kD) (RPC39), mRNA |
| 10466 | 23481 | 37101 | 2.84 | 2.0E-61 | 11421778 | NT | Homo sapiens ribosomal protein L44 (RPL44), mRNA |
| 11123 | 24195 | | 4 | 2.0E-61 | 11419729 | NT | QV0-EN0042-170300-182-f10 BN0042 Homo sapiens cDNA |
| 13144 | 25744 | 31950 | 1.46 | 2.0E-61 | AW995228.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C003 |
| 448 | 13644 | | 1.37 | 1.0E-61 | AL163203.2 | NT | Homo sapiens origin recognition complex, subunit 2 (yeast homolog)-like (ORC2L) mRNA |
| 764 | 13973 | 27028 | 1.26 | 1.0E-61 | 5453829 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 1430 | 14584 | 27658 | 1.07 | 1.0E-61 | AL163203.2 | NT | Homo sapiens zona pellucida glycoprotein 3A (sperm receptor) (ZP3A), mRNA |
| 1809 | 14958 | | 1.02 | 1.0E-61 | U32657.1 | NT | Human polymorphic trinucleotide repeat in X-linked retinitis pigmentosa (RP3) gene region |
| 1906 | 15049 | 28160 | 4.43 | 1.0E-61 | 6005983 | NT | xt11b09.y1 NCI_CGAP_L15 Homo sapiens cDNA clone IMAGE:2693369 5' similar to contains element WSR1 repetitive element; |
| 2270 | 15403 | 28531 | 1.54 | 1.0E-61 | AW827281.1 | EST_HUMAN | 601273513F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3614687 5' |
| 2896 | 16075 | 28093 | 0.98 | 1.0E-61 | BE396363.1 | EST_HUMAN | Homo sapiens KIAA0808 gene product (KIAA0808), mRNA |
| 3463 | 16830 | 28650 | 0.85 | 1.0E-61 | 7692318 | NT | QV2-HT0577-140300-077-g06 HT0577 Homo sapiens cDNA |
| 3826 | 16886 | 28989 | 1.16 | 1.0E-61 | BE174455.1 | EST_HUMAN | Human monamine oxidase A (MAOA) mRNA, complete cds |
| 4374 | 17517 | 30497 | 1.05 | 1.0E-61 | M68840.1 | NT | Homo sapiens TRAF family member-associated NFKB activator (TANK) mRNA |
| 4561 | 17699 | 30680 | 0.95 | 1.0E-61 | 4759248 | NT | Homo sapiens TRAF family member-associated NFKB activator (TANK) mRNA |
| 4591 | 17699 | 30681 | 0.95 | 1.0E-61 | 4759249 | NT | UI-H-BW0-ajl-b-08-0-UI.s1 NCI_CGAP_Sub66 Homo sapiens cDNA clone IMAGE:2732871 3' |
| 4981 | 18110 | 31086 | 9.55 | 1.0E-61 | AW298181.1 | EST_HUMAN | UI-H-BW0-ajl-b-08-0-UI.s1 NCI_CGAP_Sub66 Homo sapiens cDNA clone IMAGE:2732871 3' |
| 4981 | 18110 | 31087 | 9.55 | 1.0E-61 | AW298181.1 | EST_HUMAN | UI-H-BW0-ajl-b-08-0-UI.s1 NCI_CGAP_Sub66 Homo sapiens cDNA clone IMAGE:2732871 3' |
| 5075 | 18203 | 31175 | 0.82 | 1.0E-61 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 5509 | 18708 | 31723 | 0.71 | 1.0E-61 | M76423.1 | NT | H. sapiens carbonic anhydrase VII (CA VII) gene, exons 4,5,6, and 7, and complete cds |
| 5806 | 18996 | 32301 | 1.07 | 1.0E-61 | 7662303 | NT | Homo sapiens KIAA0763 gene product (KIAA0763), mRNA |
| 6004 | 19189 | 32508 | 1.32 | 1.0E-61 | 11416891 | NT | Homo sapiens survival of motor neuron 1, telomeric (SMN1), mRNA |
| 7041 | 20094 | 33510 | 8.92 | 1.0E-61 | M30135.1 | NT | Human P40 T-cell and mast cell growth factor (hP40) gene, complete cds |
| 7240 | 20324 | 33788 | 0.77 | 1.0E-61 | 4759171 | NT | Homo sapiens SC35-interacting protein 1 (SRRP128), mRNA |
| 7341 | 20421 | 33883 | 1.39 | 1.0E-61 | 8923130 | NT | Homo sapiens hypothetical protein FLJ20128 (FLJ20128), mRNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 7341 | 20421 | 33884 | 1.39 | 1.0E-61 | 8923130 | NT | Homo sapiens hypothetical protein FLJ20128 (FLJ20128), mRNA |
| 8328 | 21408 | 34835 | 2.69 | 1.0E-61 | 11034840 | NT | Homo sapiens growth hormone releasing hormone (GHRH), mRNA |
| 8508 | 21589 | 35123 | 3.34 | 1.0E-61 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 9482 | 22639 | | 2.78 | 1.0E-61 | AW999726.1 | EST_HUMAN | MR0-BN0070-040400-010-H01 BN0070 Homo sapiens cDNA |
| 9537 | 22822 | 36183 | 0.58 | 1.0E-61 | 11416280 | NT | Homo sapiens cadherin 18 (CDH18), mRNA |
| 10235 | 23270 | 36861 | 4.8 | 1.0E-61 | 11428892 | NT | Homo sapiens KIAA0871 protein (KIAA0871), mRNA |
| 10871 | 23956 | 37585 | 6.61 | 1.0E-61 | 11425578 | NT | Homo sapiens actinin, alpha 4 (ACTN4), mRNA |
| 11178 | 24247 | 37880 | 1.72 | 1.0E-61 | AB044680.1 | NT | Homo sapiens P/Okl.19 mRNA for ubiquitin-conjugating enzyme E2, complete cds |
| 11325 | 24388 | 38033 | 1.44 | 1.0E-61 | AB011399.1 | NT | Homo sapiens mRNA for CSR2, complete cds |
| 12242 | 28043 | | 21.57 | 1.0E-61 | AB011399.1 | NT | Homo sapiens gene for AP-8, complete cds |
| 12286 | 26031 | 31677 | 4 | 1.0E-61 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 12886 | 28031 | 31678 | 4 | 1.0E-61 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 13026 | 25676 | 31859 | 10.94 | 1.0E-61 | 11418127 | NT | Homo sapiens GTP binding protein 1 (GTPBP1), mRNA |
| 10565 | 23600 | 37206 | 1.06 | 9.0E-62 | BE064386.1 | EST_HUMAN | RC4-BT0310-110300-075-110 BT0310 Homo sapiens cDNA |
| 4673 | 17808 | 30768 | 0.85 | 8.0E-62 | AA830420.1 | EST_HUMAN | cc56h11.31 NCI_CGAP_GC81 Homo sapiens cDNA clone IMAGE:1354726 3' similar to SW:POL_MLVRK |
| 1131 | 14266 | 27361 | 1.12 | 7.0E-62 | AV714334.1 | EST_HUMAN | P31795 POL POLYPROTEIN ; |
| 3595 | 18759 | 29775 | 0.94 | 7.0E-62 | P17480 | SWISSPROT | AV714334 DOB Homo sapiens cDNA clone DCBAMA08 5' |
| 6036 | 19221 | 32544 | 0.97 | 7.0E-62 | 11427965 | NT | NUCLEOLAR TRANSCRIPTION FACTOR 1 (UPSTREAM BINDING FACTOR 1) (UBF-1) |
| 11632 | 24712 | 38403 | 4.06 | 7.0E-62 | AI208681.1 | EST_HUMAN | (AUTOANTIGEN NOR-90) |
| 3063 | 16239 | | 1.55 | 6.0E-62 | U06410.1 | NT | Homo sapiens hypothetical protein (FLJ20281), mRNA |
| 3471 | 18938 | | 5.37 | 6.0E-62 | 11418255 | NT | cg56a04.x1 Scores_testis_NH-T Homo sapiens cDNA clone IMAGE:1839150 3' similar to TR:O16103 |
| 7803 | 20859 | 34351 | 3.47 | 6.0E-62 | AI762801.1 | EST_HUMAN | O15103 HYPOTHETICAL 27.3 KD PROTEIN ; |
| 7803 | 20859 | 34352 | 3.47 | 6.0E-62 | AI762801.1 | EST_HUMAN | Human zinc finger protein ZNF131 mRNA, partial cds |
| 8277 | 21359 | | 0.66 | 6.0E-62 | AW501124.1 | EST_HUMAN | Homo sapiens CGI-58 protein (CGI-58), mRNA |
| 8462 | 21533 | 35063 | 1.52 | 6.0E-62 | 11431139 | NT | w04402.x1 NCI_CGAP_GCL1 Homo sapiens cDNA clone IMAGE:2389251 3' |
| 8554 | 22619 | 36169 | 3.67 | 6.0E-62 | AW814393.1 | EST_HUMAN | w04402.x1 NCI_CGAP_GCL1 Homo sapiens cDNA clone IMAGE:2389251 3' |
| 429 | 13624 | 26664 | 1.46 | 5.0E-62 | AI950528.1 | EST_HUMAN | UHF-BP0p-ait-d-08-0-UL1 NIH_MGC_51 Homo sapiens cDNA clone IMAGE:3072833 5' |
| 2478 | 15605 | 28729 | 6.16 | 5.0E-62 | AJ271735.1 | NT | MR3-ST0203-130100-025-028 ST0203 Homo sapiens cDNA |
| 2478 | 15605 | 28730 | 5.16 | 5.0E-62 | AJ271735.1 | NT | wx51e07.x1 NCI_CGAP_Lu28 Homo sapiens cDNA clone IMAGE:2547204 3' similar to SW:G395_HUMAN |
| | | | | | | | Q08379 GOLGIN-95, contains element MER22 repetitive element ; |
| | | | | | | | Homo sapiens Xq pseudautosomal region, segment 1/2 |
| | | | | | | | Homo sapiens Xq pseudautosomal region, segment 1/2 |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 3508 | 16973 | 29683 | 2.55 | 5.0E-62 | 4508758 | NT | Homo sapiens ryanodine receptor 3 (RYR3) mRNA |
| 4447 | 17587 | 30568 | 1.75 | 5.0E-62 | AA431093.1 | EST_HUMAN | zw78e09.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:782344 3' similar to SW:NRDC_RAT |
| 8746 | 21825 | 35362 | 0.74 | 5.0E-62 | 4508758 | NT | P47245 NARDILYSIN; |
| 9717 | 22782 | 36353 | 12.91 | 5.0E-62 | AW410887.1 | EST_HUMAN | Homo sapiens ryanodine receptor 3 (RYR3) mRNA |
| 11543 | 24569 | 38274 | 2.38 | 5.0E-62 | 11425574 | NT | h07g09.x1 NIH_MCC_17 Homo sapiens cDNA clone IMAGE:2861616 5' |
| 11543 | 24569 | 38275 | 2.38 | 5.0E-62 | 11425574 | NT | Homo sapiens muscle specific gene (M9), mRNA |
| 863 | 14040 | 27102 | 2.17 | 4.0E-62 | AW161479.1 | EST_HUMAN | Homo sapiens muscle specific gene (M9), mRNA |
| 863 | 14040 | 27103 | 2.17 | 4.0E-62 | AW161479.1 | EST_HUMAN | ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN); |
| 864 | 14040 | 27102 | 1.32 | 4.0E-62 | AW161479.1 | EST_HUMAN | ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN); |
| 864 | 14040 | 27103 | 1.32 | 4.0E-62 | AW161479.1 | EST_HUMAN | ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN); |
| 2528 | 15654 | 28778 | 1.9 | 4.0E-62 | AI827900.1 | EST_HUMAN | ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN); |
| 2528 | 15654 | 28779 | 1.9 | 4.0E-62 | AI827900.1 | EST_HUMAN | ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN); |
| 3486 | 16654 | | 9.09 | 4.0E-62 | 4557887 | NT | h07g09.x1 NIH_MCC_17 Homo sapiens cDNA clone IMAGE:2861616 5' |
| 6046 | 19229 | 32553 | 1.71 | 4.0E-62 | 4508978 | NT | Homo sapiens keratin 18 (KRT18) mRNA |
| 6426 | 19594 | 32960 | 2.81 | 4.0E-62 | 11420654 | NT | Homo sapiens keratin 18 (KRT18) mRNA |
| 7322 | 20404 | 33868 | 1.75 | 4.0E-62 | 11421041 | NT | Homo sapiens keratin 18 (KRT18) mRNA |
| 7812 | 20867 | 34361 | 2.21 | 4.0E-62 | 7657057 | NT | Homo sapiens keratin 18 (KRT18) mRNA |
| 7812 | 20867 | 34362 | 2.21 | 4.0E-62 | 7657057 | NT | Homo sapiens keratin 18 (KRT18) mRNA |
| 8364 | 21446 | 34968 | 1.12 | 4.0E-62 | 11428973 | NT | Homo sapiens keratin 18 (KRT18) mRNA |
| 9047 | 22126 | 35870 | 8.42 | 4.0E-62 | AB033089.1 | NT | Homo sapiens keratin 18 (KRT18) mRNA |
| 11263 | 24332 | 37873 | 2.62 | 4.0E-62 | Z78766.1 | NT | H. sapiens keratin 18 (KRT18) mRNA |
| 11263 | 24332 | 37874 | 2.62 | 4.0E-62 | Z78766.1 | NT | H. sapiens keratin 18 (KRT18) mRNA |
| 11500 | 24558 | 38233 | 63.7 | 4.0E-62 | S70584.1 | NT | H. sapiens keratin 18 (KRT18) mRNA |
| 12269 | 26202 | 38360 | 1.18 | 4.0E-62 | 11418098 | NT | H. sapiens keratin 18 (KRT18) mRNA |
| 12497 | 26989 | | 1.65 | 4.0E-62 | 11418192 | NT | H. sapiens keratin 18 (KRT18) mRNA |

Page 342 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 12946 | 25657 | 31955 | 1.66 | 4.0E-62 | 11418322 | NT | Homo sapiens cadherin EGF LAG seven-pass G-type receptor 1 (CELSR1), mRNA |
| 13004 | 25653 | 31952 | 0.86 | 4.0E-62 | 11417862 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 13004 | 25653 | 31953 | 6.86 | 4.0E-62 | 11417862 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 13059 | 25653 | 31955 | 2.16 | 4.0E-62 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 78 | 13312 | 26338 | 0.59 | 3.0E-62 | 4557794 | NT | Homo sapiens neurofibromin 2 (bilateral acoustic neuroma) (NF2), mRNA |
| 3111 | 16287 | 29302 | 1.13 | 3.0E-62 | AB040909.1 | NT | Homo sapiens mRNA for KIAA1476 protein, partial cds |
| 3111 | 16287 | 29302 | 1.13 | 3.0E-62 | AB040909.1 | NT | Homo sapiens mRNA for KIAA1476 protein, partial cds |
| 3789 | 16950 | 29958 | 4.19 | 3.0E-62 | X62858.1 | NT | Human cyclophilin-related processed pseudogene |
| 8737 | 21816 | 35351 | 3.74 | 3.0E-62 | A1632733.1 | EST_HUMAN | THIR repetitive element; |
| 1269 | 14417 | 27482 | 2.71 | 2.0E-62 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 8974 | 22053 | 35595 | 5.59 | 2.0E-62 | BF329911.1 | EST_HUMAN | RC0-BN0284-300500-031-e05 BN0284 Homo sapiens cDNA |
| 8974 | 22053 | 35596 | 5.59 | 2.0E-62 | BF329911.1 | EST_HUMAN | RC0-BN0284-300500-031-e05 BN0284 Homo sapiens cDNA |
| 10376 | 23411 | | 3.71 | 2.0E-62 | AF224689.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 |
| 11988 | 24973 | | 8.83 | 2.0E-62 | BF330676.1 | EST_HUMAN | (UBE2D3) genes, complete cds |
| 1060 | 14235 | 27294 | 1.14 | 1.0E-62 | AF248540.1 | NT | QV4-BT0257-081199-017-e03 BT0257 Homo sapiens cDNA |
| 1575 | 14726 | 27809 | 18.41 | 1.0E-62 | L78810.1 | NT | Homo sapiens ADP/ATP carrier protein (ANT-2) genes, complete cds |
| 1842 | 14988 | 28088 | 1.64 | 1.0E-62 | AA625207.1 | EST_HUMAN | Homo sapiens ADP/ATP carrier protein (ANT-2) genes, complete cds |
| 2981 | 16167 | 28176 | 1.22 | 1.0E-62 | AL038044.1 | EST_HUMAN | af70e11.1 Soares_NHMPu_S1 Homo sapiens cDNA clone IMAGE:1047404 5' similar to WP-K01H12.1 |
| 4848 | 17784 | 30787 | 1.84 | 1.0E-62 | 8823201 | NT | CE03463; |
| 6418 | 19587 | 32850 | 2.02 | 1.0E-62 | U52111.2 | NT | DKFZp566F104_r1 566 (synonym: hrid2) Homo sapiens cDNA clone DKFZp566F104 5' |
| 7284 | 20367 | 33820 | 1.07 | 1.0E-62 | AA490060.1 | EST_HUMAN | Homo sapiens hypothetical protein FLJ20212 (FLJ20212), mRNA |
| 7296 | 20377 | 33834 | 2.69 | 1.0E-62 | AA722878.1 | EST_HUMAN | Homo sapiens X28 region near ALD locus containing dual specificity phosphatase 9 (DUSP9), ribosomal protein L18a (RPL18a), Ca2+/Calmodulin-dependent protein kinase I (CAMKI), creatine transporter (CRTF), |
| 7295 | 20377 | 33835 | 2.69 | 1.0E-62 | AA722878.1 | EST_HUMAN | protein L18a (RPL18a), Ca2+/Calmodulin-dependent protein kinase I (CAMKI), creatine transporter (CRTF), |
| 7295 | 20377 | 33835 | 2.69 | 1.0E-62 | AA722878.1 | EST_HUMAN | CDM protein (CDM), adrenoleukodystrophy protein > |
| 6937 | 22036 | 35577 | 0.54 | 1.0E-62 | AA280060.1 | EST_HUMAN | ab05c02.s1 Stragene fetal retina 637202 Homo sapiens cDNA clone IMAGE:839806 3' |
| 9258 | 22335 | 35885 | 1.65 | 1.0E-62 | 7662289 | NT | z889f10.s1 Soares_fetal heart NBH19W Homo sapiens cDNA clone IMAGE:409771 3' |
| 9258 | 22335 | 35886 | 1.65 | 1.0E-62 | 7662289 | NT | z889f10.s1 Soares_fetal heart NBH19W Homo sapiens cDNA clone IMAGE:409771 3' |
| 9302 | 22378 | 35928 | 1.92 | 1.0E-62 | X15533.1 | NT | z889f10.s1 Soares_fetal heart NBH19W Homo sapiens cDNA clone IMAGE:409771 3' |
| 9302 | 22378 | 35929 | 1.92 | 1.0E-62 | X15533.1 | NT | z889f10.s1 Soares_fetal heart NBH19W Homo sapiens cDNA clone IMAGE:409771 3' |
| 8757 | 22595 | 36263 | 3.03 | 1.0E-62 | AA465170.1 | EST_HUMAN | z889f10.s1 Soares_fetal heart NBH19W Homo sapiens cDNA clone IMAGE:409771 3' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 11848 | 24727 | 38419 | 2.28 | 1.0E-62 | Z78698.1 | NT | H.sapiens flow-sorted chromosome 6 HindIII fragment, SCSpA14DB |
| 12809 | 25540 | | 4.63 | 1.0E-62 | 11418322 | NT | Homo sapiens cadherin EGF LAG seven-pass G-type receptor 1 (CELSR1), mRNA |
| 13042 | 25684 | 31962 | 3.16 | 1.0E-62 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 348 | 13559 | 26587 | 2.27 | 9.0E-63 | AW810405.1 | EST_HUMAN | QV4-ST0234-181189-037-105 ST0234 Homo sapiens cDNA |
| 2421 | 15550 | | 2.17 | 9.0E-63 | C18159.1 | EST_HUMAN | C18159 Human placenta cDNA (Tfujikawa) Homo sapiens cDNA clone GEN-598C10 5' |
| 4152 | 17304 | 30297 | 8.77 | 9.0E-63 | AB002348.2 | NT | Homo sapiens mRNA for KIAA0350 protein, partial cds |
| 4152 | 17304 | 30288 | 8.77 | 9.0E-63 | AB002348.2 | NT | Homo sapiens mRNA for KIAA0350 protein, partial cds |
| 6368 | 18484 | 38824 | 4.69 | 9.0E-63 | 11418185 | NT | Homo sapiens aconitase 2, mitochondrial (ACO2), mRNA |
| 6582 | 18777 | 31822 | 1.44 | 9.0E-63 | Y15058.1 | NT | Homo sapiens mRNA for PKB kinase |
| 7332 | 20413 | 33876 | 3.78 | 9.0E-63 | 11426985 | NT | Homo sapiens nucleoporin 88kD (NUP88), mRNA |
| 8009 | 21059 | 34571 | 1.77 | 9.0E-63 | 4885544 | NT | Homo sapiens pyruvate dehydrogenase kinase, isoenzyme 3 (PDK3), mRNA |
| 8521 | 21602 | 35139 | 1.18 | 9.0E-63 | 11421160 | NT | Homo sapiens Ras association (RasGDS/AP-6) domain family 2 (RASSF2), mRNA |
| 11296 | 24362 | 38003 | 1.3 | 9.0E-63 | BF203408.1 | EST_HUMAN | 60185528F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4098487 5' |
| 2420 | 15549 | 28677 | 3.05 | 8.0E-63 | 4557734 | NT | Homo sapiens monoamine oxidase A (MAOA), nuclear gene encoding mitochondrial protein, mRNA |
| 2446 | 15874 | 28703 | 2.58 | 8.0E-63 | 5031810 | NT | Homo sapiens IL2-inducible T-cell kinase (ITK), mRNA |
| 3550 | 16715 | 29727 | 4.26 | 8.0E-63 | AF198348.1 | NT | Gallus gallus Dach2 protein (Dach2), mRNA, complete cds |
| 3550 | 16715 | 29728 | 4.26 | 8.0E-63 | AF198348.1 | NT | Gallus gallus Dach2 protein (Dach2), mRNA, complete cds |
| 4381 | 17524 | 30505 | 4.36 | 8.0E-63 | AL163288.2 | NT | Homo sapiens chromosome 21 segment HS21C088 |
| 852 | 14125 | | 3.38 | 7.0E-63 | AB72137.1 | EST_HUMAN | wm56g11.XT NCI_CGAP_U12 Homo sapiens cDNA clone IMAGE:2439908 3' |
| 5455 | 18655 | | 70.59 | 6.0E-63 | AA420803.1 | EST_HUMAN | nc6302.F1 NCI_CGAP_P11 Homo sapiens cDNA clone IMAGE:2439908 3' |
| 9076 | 22154 | 36698 | 0.62 | 5.0E-63 | 11528484 | NT | RIK10595-190100-072-a09 BT0595 Homo sapiens cDNA |
| 3398 | 16588 | 29584 | 0.88 | 4.0E-63 | AL163278.2 | NT | Homo sapiens G protein-coupled receptor 51 (GPR51), mRNA |
| 3910 | 17059 | 30066 | 1.06 | 4.0E-63 | AB014607.1 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 3910 | 17059 | 30067 | 1.06 | 4.0E-63 | AB014607.1 | NT | Homo sapiens mRNA for KIAA0707 protein, partial cds |
| 6576 | 19737 | 33116 | 2.8 | 4.0E-63 | AB014607.1 | NT | Homo sapiens mRNA for KIAA0707 protein, partial cds |
| 6576 | 19737 | 33117 | 2.6 | 4.0E-63 | AW760372.1 | EST_HUMAN | GM3-BT0595-190100-072-a09 BT0595 Homo sapiens cDNA |
| 11397 | 24458 | 38121 | 2.02 | 4.0E-63 | AW750372.1 | EST_HUMAN | GM3-BT0595-190100-072-a09 BT0595 Homo sapiens cDNA |
| 11397 | 24458 | 38122 | 2.02 | 4.0E-63 | AW134709.1 | EST_HUMAN | UI-H-B11-abq-a-02-a-UI-61 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2712482 3' |
| 1989 | 15131 | 28235 | 15.19 | 3.0E-63 | AB018280.1 | NT | UI-H-B11-abq-a-02-a-UI-61 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2712482 3' |
| 2840 | 15954 | 29081 | 1.49 | 3.0E-63 | J00310.1 | NT | Homo sapiens mRNA for KIAA0717 protein, partial cds |
| 2882 | 14426 | 27493 | 11.94 | 3.0E-63 | 6005963 | NT | Human Mel-fRNA-i gene 1 |
| 6003 | 19703 | 33151 | 33.93 | 3.0E-63 | 11545810 | NT | Homo sapiens zinc finger protein 144 (ZNF144), mRNA |
| | | | | | | | Homo sapiens hepatocellular carcinoma antigen gene 520 (LOC83928), mRNA |

Page 344 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 8907 | 22947 | 39533 | 0.83 | 3.0E-63 | BE878158.1 | EST_HUMAN | 601485656F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3888253 5' |
| 8907 | 22947 | 39534 | 0.83 | 3.0E-63 | BE878158.1 | EST_HUMAN | 601485656F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3888253 5' |
| 106 | 13419 | 28449 | 1.69 | 2.0E-63 | U07804.1 | NT | Human DNA topoisomerase I mRNA, partial cds |
| 203 | 13426 | 28457 | 1.65 | 2.0E-63 | 4885226 | NT | Homo sapiens eyes absent (Drosophila) homolog 2 (EYA2), mRNA |
| 510 | 13704 | | 1.19 | 2.0E-63 | 4557624 | NT | Homo sapiens glutamate-cysteine ligase (gamma-glutamylcysteine synthetase), catalytic (72.8kD) (GLCLC) mRNA |
| 849 | 14027 | 27087 | 3.07 | 2.0E-63 | 7857042 | NT | Homo sapiens Down syndrome candidate region 1 (DSCR1), mRNA |
| 1597 | 14750 | 27834 | 1.54 | 2.0E-63 | AB030388.1 | NT | Homo sapiens RHCE mRNA for Rh blood CE group antigen polypeptide, complete cds |
| 1597 | 14750 | 27835 | 1.54 | 2.0E-63 | AB030388.1 | NT | Homo sapiens RHCE mRNA for Rh blood CE group antigen polypeptide, complete cds |
| 1809 | 14956 | 28049 | 2.02 | 2.0E-63 | BE410739.1 | EST_HUMAN | 601301627F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3836103 5' |
| 2146 | 15282 | 28407 | 1.05 | 2.0E-63 | AB63961.1 | EST_HUMAN | wf54b2x1 NCL CGAP_L19 Homo sapiens cDNA clone IMAGE:2406603 3' similar to gb:M57609 GLI3 PROTEIN (HUMAN); |
| 3225 | 16399 | 29411 | 1.94 | 2.0E-63 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 3357 | 16529 | 29544 | 2.4 | 2.0E-63 | AF109718.1 | NT | Homo sapiens chromosome 3 subtelomeric region |
| 4014 | 17171 | 30179 | 3.19 | 2.0E-63 | L38891.1 | NT | Homo sapiens polycystic kidney disease-associated protein (PKD1) gene, complete cds |
| 4988 | 18117 | 31098 | 1.28 | 2.0E-63 | AF111167.2 | NT | Homo sapiens Jun dimerization protein gene, partial cds; cfos gene, complete cds; and unknown gene |
| 5378 | 25802 | 31447 | 0.86 | 2.0E-63 | 11418429 | NT | Homo sapiens similar to eukaryotic pyrophosphatase/phosphodiesterase 3 (H. sapiens) (LOC693214), mRNA |
| 6005 | 19190 | 32509 | 2.41 | 2.0E-63 | BF373541.1 | EST_HUMAN | QV1-FT0170-040700-285-c05 FT0170 Homo sapiens cDNA |
| 6005 | 19190 | 32510 | 2.41 | 2.0E-63 | BF373541.1 | EST_HUMAN | QV1-FT0170-040700-285-c05 FT0170 Homo sapiens cDNA |
| 6315 | 19487 | 32842 | 1.07 | 2.0E-63 | 11421840 | NT | Homo sapiens protein kinase, cAMP-dependent, regulatory, type II, beta (PRKAR2B), mRNA |
| 6315 | 19487 | 32843 | 1.07 | 2.0E-63 | 11421840 | NT | Homo sapiens protein kinase, cAMP-dependent, regulatory, type II, beta (PRKAR2B), mRNA |
| | | | | | | | Human gameline T-cell receptor beta chain Dopamine-beta-hydroxylase-like, TRY1, TRY2, TRY3, TCRBV27S1P, TCRBV22S1A2N1T, TCRBV6S1A1T, TCRBV7S1A1N2T, TCRBV6S1A1T, TCRBV13S3, TCRBV6S7P, TCRBV7S3A2T, TCRBV13S2A1T, TCRBV6S2A2PT, TCRBV7S2A1N4T, TCRBV13S9/13S> |
| 6841 | 19994 | 33403 | 1.43 | 2.0E-63 | U66059.1 | NT | Homo sapiens MIST mRNA, partial cds |
| 6887 | 20039 | 33448 | 0.72 | 2.0E-63 | AB032369.1 | NT | Homo sapiens MIST mRNA, partial cds |
| 6887 | 20039 | 33449 | 0.72 | 2.0E-63 | AB032369.1 | NT | Homo sapiens MIST mRNA, partial cds |
| 7222 | 20095 | 33502 | 1.72 | 2.0E-63 | 5910365 | NT | Homo sapiens Carbonic anhydrase-related protein 10 (LOC56934), mRNA |
| 7222 | 20095 | 33503 | 1.72 | 2.0E-63 | 5910365 | NT | Homo sapiens Carbonic anhydrase-related protein 10 (LOC56934), mRNA |
| 7657 | 21007 | 34517 | 0.96 | 2.0E-63 | AB046844.1 | NT | Homo sapiens mRNA for KIAA1624 protein, partial cds |
| 8730 | 21810 | 35346 | 4.29 | 2.0E-63 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |

Page 345 of 550

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO. | Exon SEQ ID NO. | ORF SEQ ID NO. | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 9254 | 22331 | 35879 | 0.94 | 2.0E-63 | 11420849 | NT | Homo sapiens kinesin family member 3B (KIF3B), mRNA |
| 9254 | 22331 | 35880 | 0.94 | 2.0E-63 | 11420849 | NT | Homo sapiens kinesin family member 3B (KIF3B), mRNA |
| 10143 | 23181 | 36776 | 1.2 | 2.0E-63 | AL163218.2 | NT | Homo sapiens chromosome 21 segment HS21C018 |
| 10885 | 24084 | 37699 | 10.73 | 2.0E-63 | N78945.1 | EST_HUMAN | zb18b05.s1 Soares_fetal_Jung_NHL19W Homo sapiens cDNA clone IMAGE:302386 3' similar to |
| 11012 | 24091 | 37726 | 2.89 | 2.0E-63 | AF098910.1 | NT | gbX17208 40S RIBOSOMAL PROTEIN S4 (HUMAN); |
| 11012 | 24091 | 37729 | 2.89 | 2.0E-63 | AF098910.1 | NT | Homo sapiens neuraxin III-alpha gene, partial cds |
| 12380 | 25929 | 31789 | 3.64 | 2.0E-63 | 11418185 | NT | Homo sapiens neuraxin III-alpha gene, partial cds |
| 13101 | 25717 | 31940 | 1.19 | 2.0E-63 | 11418187 | NT | Homo sapiens aconitase 2, mitochondrial (ACO2), mRNA |
| 13172 | 25760 | 31930 | 1.37 | 2.0E-63 | AB011389.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 786 | 13965 | 27016 | 1.55 | 1.0E-63 | 7108448 | NT | Mus musculus wingless-related MMTV integration site 3A (Wn3a), mRNA |
| 786 | 13965 | 27017 | 1.55 | 1.0E-63 | 7108448 | NT | Mus musculus wingless-related MMTV integration site 3A (Wn3a), mRNA |
| 4481 | 17601 | 30579 | 3.31 | 1.0E-63 | F08465.1 | EST_HUMAN | HSZVD111 normalized infant brain cDNA Homo sapiens cDNA clone c-zid11 |
| 4481 | 17601 | 30580 | 3.31 | 1.0E-63 | F08465.1 | EST_HUMAN | HSZVD111 normalized infant brain cDNA Homo sapiens cDNA clone c-zid11 |
| 5468 | 19668 | 31647 | 1.73 | 1.0E-63 | AJ271736.1 | NT | Homo sapiens Xq pseudautosomal region; segment 2/2 |
| 5890 | 19078 | 32388 | 1.38 | 1.0E-63 | AW582286.1 | EST_HUMAN | QV6-ST0215-060100-083-b09 ST0215 Homo sapiens cDNA |
| 6521 | 19888 | 33058 | 0.68 | 1.0E-63 | AW451850.1 | EST_HUMAN | UI-H-B18-alk-h-02-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:3088763 3' |
| 6521 | 19888 | 33058 | 0.68 | 1.0E-63 | AW451850.1 | EST_HUMAN | UI-H-B18-alk-h-02-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:3088763 3' |
| 8698 | 21748 | | 2.97 | 1.0E-63 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 13121 | 20047 | | 8.88 | 1.0E-63 | AL163207.2 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 6089 | 19270 | 32598 | 0.61 | 9.0E-64 | AW401433.1 | EST_HUMAN | UI-HF-RK0-aad-b-09-0-UI.r1 NIH_MGC_38 Homo sapiens cDNA clone IMAGE:3053153 5' |
| 8051 | 21134 | 34654 | 5.57 | 9.0E-64 | AW478186.1 | EST_HUMAN | Im50507.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2161626 3' |
| 1071 | 14237 | | 3.45 | 8.0E-64 | BE280798.1 | EST_HUMAN | 801155232F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3139038 5' |
| 6268 | 19442 | 32791 | 3.51 | 8.0E-64 | BE885755.1 | EST_HUMAN | 601508968F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3910336 5' |
| 12187 | 25148 | | 2.79 | 8.0E-64 | 11418177 | NT | Homo sapiens Ran GTPase activating protein 1 (RANGAP1), mRNA |
| 12243 | 25185 | | 3.68 | 8.0E-64 | T60651.1 | EST_HUMAN | y698b02.r1 Stragene lung (#937210) Homo sapiens cDNA clone IMAGE:79179 5' |
| 3618 | 16782 | | 0.74 | 7.0E-64 | BE394321.1 | EST_HUMAN | 801311455F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3633204 5' |
| 4854 | 17987 | 30974 | 5.34 | 7.0E-64 | 4507490 | NT | Homo sapiens thimet oligopeptidase 1 (THOP1) mRNA |
| 4854 | 17987 | 30975 | 5.34 | 7.0E-64 | 4507490 | NT | Homo sapiens thimet oligopeptidase 1 (THOP1) mRNA |
| 10239 | 23274 | 36865 | 2.62 | 7.0E-64 | Y07648.1 | NT | Homo sapiens EWS, gar22, rrp22 and bam22 genes |
| 1760 | 14909 | 28002 | 6.73 | 6.0E-64 | AI651992.1 | EST_HUMAN | W651607.x1 NCI_CGAP_GC8 Homo sapiens cDNA clone IMAGE:2309220 3' similar to gbM15182 BETA- |
| 1760 | 14909 | 28003 | 6.73 | 6.0E-64 | AI651992.1 | EST_HUMAN | GLUCURONIDASE PRECURSOR (HUMAN); |
| | | | | | | | W651607.x1 NCI_CGAP_GC8 Homo sapiens cDNA clone IMAGE:2309220 3' similar to gbM15182 BETA- |
| | | | | | | | GLUCURONIDASE PRECURSOR (HUMAN); |

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| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 3192 | 16367 | 29372 | 3.91 | 6.0E-64 | AW028445.1 | EST_HUMAN | wv13e03.x1 NCL CGAP_Bm23 Homo sapiens cDNA clone IMAGE:2528436 3' |
| 3192 | 16367 | 29373 | 3.91 | 6.0E-64 | AW028445.1 | EST_HUMAN | wv13e03.x1 NCL CGAP_Bm23 Homo sapiens cDNA clone IMAGE:2528436 3' |
| 6739 | 18932 | 32230 | 2.95 | 6.0E-64 | Y18933.1 | NT | Homo sapiens MCP-1 gene and enhancer region |
| 5739 | 18932 | 32231 | 2.95 | 6.0E-64 | Y18933.1 | NT | Homo sapiens MCP-1 gene and enhancer region |
| 5758 | 18950 | 32252 | 5.32 | 6.0E-64 | M13975.1 | NT | Homo sapiens protein kinase C beta-II type (PRKCB1) mRNA, complete cds |
| 5767 | 18939 | 32260 | 0.68 | 6.0E-64 | 6912461 | NT | Homo sapiens atrophin-1 interacting protein 1; activin receptor interacting protein 1 (KIAA0705), mRNA |
| 5961 | 19137 | 32452 | 0.74 | 6.0E-64 | 11422189 | NT | Homo sapiens calcitonin receptor (CALCR), mRNA |
| 5951 | 19137 | 32453 | 0.74 | 6.0E-64 | 11422189 | NT | Homo sapiens calcitonin receptor (CALCR), mRNA |
| 7384 | 20462 | 33925 | 2.54 | 6.0E-64 | 11525879 | NT | Homo sapiens mesenchyme homeo box 1 (MEOX1), mRNA |
| 7384 | 20462 | 33928 | 2.54 | 6.0E-64 | 11525879 | NT | Homo sapiens mesenchyme homeo box 1 (MEOX1), mRNA |
| 9528 | 22593 | 36164 | 7.39 | 6.0E-64 | 11420555 | NT | Homo sapiens acetyl-CoA synthetase (LOC55802), mRNA |
| 9706 | 22765 | 36328 | 1.75 | 6.0E-64 | AF274753.1 | NT | Homo sapiens progressive ankylosis-like protein (ANK), mRNA, complete cds |
| 9919 | 22959 | 36548 | 2.16 | 6.0E-64 | S76475.1 | NT | trkC [human, brain, mRNA, 2715 nt] |
| 11008 | 24087 | 37724 | 4.68 | 6.0E-64 | 11420197 | NT | Homo sapiens stromal antigen 3 (STAG3), mRNA |
| 11008 | 24087 | 37725 | 4.68 | 6.0E-64 | 11420197 | NT | Homo sapiens stromal antigen 3 (STAG3), mRNA |
| 11269 | 16367 | 29372 | 1.73 | 6.0E-64 | AW028445.1 | EST_HUMAN | wv13e03.x1 NCL CGAP_Bm23 Homo sapiens cDNA clone IMAGE:2528436 3' |
| 11269 | 16367 | 29373 | 1.73 | 6.0E-64 | AW028445.1 | EST_HUMAN | wv13e03.x1 NCL CGAP_Bm23 Homo sapiens cDNA clone IMAGE:2528436 3' |
| 12400 | 25280 | 32081 | 2.98 | 6.0E-64 | 11526108 | NT | Homo sapiens interleukin 10 receptor, beta (IL10RB), mRNA |
| 843 | 14021 | 27078 | 4.18 | 5.0E-64 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 843 | 14021 | 27079 | 4.18 | 5.0E-64 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 1369 | 14524 | 27698 | 1.02 | 5.0E-64 | AB020710.1 | NT | Homo sapiens mRNA for KIAA0903 protein, partial cds |
| 1453 | 14508 | 27685 | 1.15 | 5.0E-64 | L40933.1 | NT | Homo sapiens phosphoglucomutase-related protein (PGMRP) gene, complete cds |
| 1453 | 14508 | 27686 | 1.15 | 5.0E-64 | L40933.1 | NT | Homo sapiens phosphoglucomutase-related protein (PGMRP) gene, complete cds |
| 1749 | 14898 | 27694 | 1.54 | 5.0E-64 | U86358.1 | NT | Human (3)mb1 protein homolog mRNA, complete cds |
| 2887 | 14663 | 27746 | 4.43 | 6.0E-64 | 7662205 | NT | Homo sapiens KIAA0618 gene product (KIAA0618), mRNA |
| 2887 | 14663 | 27747 | 4.43 | 6.0E-64 | 7662205 | NT | Homo sapiens KIAA0618 gene product (KIAA0618), mRNA |
| 4088 | 17224 | 30231 | 7.25 | 5.0E-64 | AF017433.1 | NT | Homo sapiens putative transcription factor CR53 (CR53) mRNA, partial cds |
| 8000 | 21050 | 34563 | 0.71 | 4.0E-64 | BE794607.1 | EST_HUMAN | 60160382F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3944367 5' |
| 11051 | 24128 | 37763 | 2.34 | 4.0E-64 | AW813783.1 | EST_HUMAN | RC3-ST0197-120200-015-a03 ST0197 Homo sapiens cDNA |
| 11051 | 24128 | 37764 | 2.34 | 4.0E-64 | AW813783.1 | EST_HUMAN | RC3-ST0197-120200-015-a03 ST0197 Homo sapiens cDNA |
| 2271 | 15404 | 28532 | 6.77 | 3.0E-64 | C18895.1 | EST_HUMAN | G18895 Human placenta cDNA (Tfujiiwara) Homo sapiens cDNA clone GEN:669502 5' |
| 3327 | 15500 | 29518 | 0.82 | 3.0E-64 | BE794381.1 | EST_HUMAN | 60166956F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943577 5' |
| 3529 | 18694 | 28704 | 1.83 | 3.0E-64 | AV711714.1 | EST_HUMAN | AV711714 DCA Homo sapiens cDNA clone DCAAMC01 5' |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 3529 | 16694 | 25705 | 1.83 | 3.0E-64 | AV711714.1 | EST_HUMAN | AV711714 DCA Homo sapiens cDNA clone DCAAMC01.6' |
| 6206 | 19381 | 32731 | 1.31 | 3.0E-64 | Z26273.1 | NT | H. sapiens isoform 1 gene for L-type calcium channel, exon 28 |
| 6471 | 19638 | 32997 | 0.68 | 3.0E-64 | AW500881.1 | EST_HUMAN | UJ-HF-BPop-alk-c-06-0-UJ.H1 NIH_MGC_61 Homo sapiens cDNA clone IMAGE:3073161.6' |
| 6622 | 19782 | 33170 | 3.2 | 3.0E-64 | BF370000.1 | EST_HUMAN | RC6-FN0019-280600-011-G11 FN0019 Homo sapiens cDNA |
| 8661 | 21741 | 35281 | 1.86 | 3.0E-64 | AF248953.1 | NT | Homo sapiens golgi matrix protein GM130 (GOLGA2) mRNA, complete cds |
| 8661 | 21741 | 35282 | 1.86 | 3.0E-64 | AF248953.1 | NT | Homo sapiens golgi matrix protein GM130 (GOLGA2) mRNA, complete cds |
| 8692 | 21772 | 35303 | 1.48 | 3.0E-64 | BE206521.1 | EST_HUMAN | bb72h12.y1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3047976.5' similar to gb.L08069 DNAJ |
| 8692 | 21772 | 35304 | 1.48 | 3.0E-64 | BE206521.1 | EST_HUMAN | PROTEIN HOMOLOG 2 (HUMAN); |
| 9627 | 22682 | 36251 | 1.12 | 3.0E-64 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 9627 | 22682 | 36252 | 1.12 | 3.0E-64 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 9714 | 22779 | 36349 | 0.66 | 3.0E-64 | AW977384.1 | EST_HUMAN | EST1389493 MAGE resequences, MAGO Homo sapiens cDNA |
| 9714 | 22779 | 36350 | 0.66 | 3.0E-64 | AW977384.1 | EST_HUMAN | EST1389493 MAGE resequences, MAGO Homo sapiens cDNA |
| 11514 | 24571 | 38248 | 1.54 | 3.0E-64 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 11514 | 24571 | 38249 | 1.54 | 3.0E-64 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 11990 | 24975 | 38879 | 2.16 | 3.0E-64 | AL163227.2 | NT | Homo sapiens chromosome 21 segment HS21C027 |
| 1112 | 14277 | 27334 | 1.1 | 2.0E-64 | AA609940.1 | EST_HUMAN | af09408.s1 Soares, testis_NHT Homo sapiens cDNA clone IMAGE:1031151.3' |
| 1428 | 14582 | 27655 | 3.2 | 2.0E-64 | 4757701 | NT | Homo sapiens eIF4E-like cap-binding protein (eIF4P) mRNA |
| 2502 | 15717 | | 1.28 | 2.0E-64 | A1927030.1 | EST_HUMAN | ws87b01.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2462281.3' similar to contains element |
| 2597 | 15721 | 28840 | 2.4 | 2.0E-64 | AL163246.2 | NT | L1 repetitive element; |
| 2887 | 15721 | 28841 | 2.4 | 2.0E-64 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 3887 | 17046 | 30045 | 0.98 | 2.0E-64 | AW958145.1 | EST_HUMAN | EST1370215 MAGE resequences, MAGE Homo sapiens cDNA |
| 3887 | 17046 | 30046 | 0.98 | 2.0E-64 | AW958145.1 | EST_HUMAN | EST1370215 MAGE resequences, MAGE Homo sapiens cDNA |
| 6129 | 19308 | 32649 | 2.28 | 2.0E-64 | AU124387.1 | EST_HUMAN | AU124387 NT2RM2 Homo sapiens cDNA clone NT2RM2002113.6' |
| 6372 | 19541 | 32800 | 1.23 | 2.0E-64 | AF113709.1 | NT | Homo sapiens angiotensin 4 (ANG4) mRNA, partial cds |
| 6614 | 19774 | 33185 | 5.04 | 2.0E-64 | BF686537.1 | EST_HUMAN | 60212347F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4280395.6' |
| 6724 | 19881 | 33272 | 1.3 | 2.0E-64 | AID78387.1 | EST_HUMAN | alpha2b03.x1 Soares, testis_Nb2HFB_9w Homo sapiens cDNA clone IMAGE:1676717.3' |
| 6840 | 19393 | 33402 | 2.06 | 2.0E-64 | M77185.1 | NT | H. sapiens dopamine receptor D6 pseudogene 1, partial cds |
| 7860 | 21040 | 34552 | 0.67 | 2.0E-64 | 11431054 | NT | Homo sapiens ataxin 2-binding protein 1 (A2BP1), mRNA |
| 8868 | 21947 | 35480 | 1.08 | 2.0E-64 | 11434008 | NT | Homo sapiens lymphocyte cytosolic protein 1 (L-plastin), mRNA |
| 8868 | 21947 | 35481 | 1.08 | 2.0E-64 | 11434008 | NT | Homo sapiens lymphocyte cytosolic protein 1 (L-plastin), mRNA |
| 9431 | 22506 | 36071 | 1.09 | 2.0E-64 | AU132570.1 | EST_HUMAN | AU132570 NT2RFP4 Homo sapiens cDNA clone NT2RFP400109.6' |

Page 348 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 10184 | 23221 | 38815 | 0.5 | 2.0E-64 | T06397.1 | EST_HUMAN | EST04286 Fetal brain, Stratagene (cat#9363206) Homo sapiens cDNA clone HFBD588 |
| 10184 | 23221 | 38816 | 0.5 | 2.0E-64 | T06397.1 | EST_HUMAN | EST04286 Fetal brain, Stratagene (cat#9363206) Homo sapiens cDNA clone HFBD588 |
| 11000 | 24079 | 37714 | 2.21 | 2.0E-64 | BF528114.1 | EST_HUMAN | 602042882F1 NCI_CGAP_Bim67 Homo sapiens cDNA clone IMAGE:4180568 5' |
| 11308 | 24371 | 38012 | 4.28 | 2.0E-64 | AI922911.1 | EST_HUMAN | wn81b06.x1 NCI_CGAP_Uti Homo sapiens cDNA clone IMAGE:2452211 3' |
| 11308 | 24371 | 38013 | 4.28 | 2.0E-64 | AI922911.1 | EST_HUMAN | wn81b06.x1 NCI_CGAP_Uti Homo sapiens cDNA clone IMAGE:2452211 3' |
| 11509 | 24567 | 38244 | 1.46 | 2.0E-64 | AW684773.1 | EST_HUMAN | PIZ-SN0018-220300-002-e12 SN0018 Homo sapiens cDNA |
| 12804 | 25537 | | 3.69 | 2.0E-64 | H55162.1 | EST_HUMAN | CHR220101 Chromosome 22 exon Homo sapiens cDNA clone C22_132 5' |
| 268 | 13487 | 26517 | 1.39 | 1.0E-64 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 1920 | 14869 | 28061 | 24.22 | 1.0E-64 | AI929419.1 | EST_HUMAN | au60c01.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2619136 3' similar to |
| 3076 | 18262 | 29274 | 0.8 | 1.0E-64 | 4507334 | NT | gbl21686_cde1 PROTHYMOSIN ALPHA (HUMAN); contains element MSR1 repetitive element ; |
| | | | | | | | Homo sapiens synaptotagmin 1 (SYNJ1), mRNA |
| 3601 | 16765 | 29781 | 5.47 | 1.0E-64 | AF198779.1 | NT | Homo sapiens transcription factor IGHM enhancer 3, JM11 protein, JM6 protein, JM6 protein, T64 protein, JM10 protein, A4 differentiation-dependent protein, triple LIM domain protein 6, and synaptophysin genes, complete cds; and L-type calcium channel α |
| 3676 | 16838 | 29848 | 1.14 | 1.0E-64 | AF228627.1 | NT | Homo sapiens TRIAD3 mRNA, partial cds |
| 3875 | 16838 | 29849 | 1.14 | 1.0E-64 | AF228627.1 | NT | Homo sapiens TRIAD3 mRNA, partial cds |
| 4008 | 17165 | 30173 | 0.88 | 1.0E-64 | 8922829 | NT | Homo sapiens hypohelical protein FLJ11028 (FLJ11028), mRNA |
| 10269 | 23304 | 36601 | 1.17 | 1.0E-64 | AA042975.1 | EST_HUMAN | zk6308.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:486667 3' |
| 12291 | 25216 | | 4.56 | 1.0E-64 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 2350 | 15481 | 28613 | 1.87 | 9.0E-65 | X89211.1 | NT | H. sapiens DNA for endogenous retroviral like element |
| 2350 | 15481 | 28614 | 1.87 | 9.0E-65 | X89211.1 | NT | H. sapiens DNA for endogenous retroviral like element |
| 11828 | 24815 | | 19.08 | 9.0E-65 | BF330876.1 | EST_HUMAN | QV4-BT0257-081199-017-e03 BT0257 Homo sapiens cDNA |
| 11789 | 24789 | 38486 | 7.24 | 8.0E-65 | AI928244.1 | EST_HUMAN | au58h07.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2619005 3' similar to |
| 10358 | 23393 | 37004 | 2.16 | 7.0E-65 | BE081653.1 | EST_HUMAN | SW/RL21_HUMAN P46778 60S RIBOSOMAL PROTEIN L21.; |
| 12055 | 26076 | 38782 | 2.88 | 7.0E-65 | Z21378.1 | EST_HUMAN | QV2-BT0635-240400-162-e02 BT0635 Homo sapiens cDNA |
| 1081 | 14247 | 27304 | 0.81 | 6.0E-65 | AV721998.1 | EST_HUMAN | HSAAAEAWO TEST1, Human adult Testis tissue Homo sapiens cDNA clone cam test346 (b) |
| 1974 | 16117 | | 20.04 | 6.0E-65 | AA550929.1 | EST_HUMAN | h186d10.s1 NCI_CGAP_Prl11 Homo sapiens cDNA clone HTBBZC08 5' |
| 6889 | 19557 | 33247 | 0.8 | 6.0E-65 | AA503892.1 | EST_HUMAN | RIBOSOMAL PROTEIN L32 (HUMAN); |
| | | | | | | | h1837607.s1 NCI_CGAP_Prl5 Homo sapiens cDNA clone IMAGE:664617 |
| 8945 | 22024 | 35584 | 2.45 | 6.0E-65 | AW083262.1 | EST_HUMAN | xe07b08.x1 NCI_CGAP_Coz1 Homo sapiens cDNA clone IMAGE:2583545 3' similar to TR:Q63306 Q63308 |
| 9213 | 22291 | 36833 | 4.63 | 6.0E-65 | AA427878.1 | EST_HUMAN | LONG INTERSPERSED REPETITIVE DNA CONTAINING 7 ORF's, contains L1.b2 L1 repetitive element ; |
| | | | | | | | zw53b08.s1 Soares_fetal_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:773747 3' |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 9213 | 22291 | 35834 | 4.63 | 6.0E-65 | AA427878.1 | EST_HUMAN | zw53b06.s1 Soares_tet1_tet1_Nb2Hf8_9w Homo sapiens cDNA clone IMAGE:773747 3' |
| 9276 | 22351 | 35902 | 0.62 | 6.0E-65 | AI085314.1 | EST_HUMAN | q11805.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:1750425 3' |
| 9276 | 22351 | 35903 | 0.62 | 6.0E-65 | AI085314.1 | EST_HUMAN | q11805.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:1750425 3' |
| 11113 | 24185 | 37817 | 3.58 | 6.0E-65 | BE567816.1 | EST_HUMAN | 601340485F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3682877 5' |
| 11284 | 24360 | 38001 | 4.18 | 6.0E-65 | BF340825.1 | EST_HUMAN | 602037721F1 NCI_CGAP_Bm64 Homo sapiens cDNA clone IMAGE:4185877 5' |
| 11788 | 24778 | 38475 | 1.80 | 6.0E-65 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 648 | 13833 | 26859 | 1.89 | 5.0E-65 | AF084604.1 | NT | Homo sapiens KE03 protein mRNA, partial cds |
| 1384 | 14539 | 27613 | 1.92 | 6.0E-65 | 7681951 | NT | Homo sapiens KIAA0156 gene product (KIAA0156), mRNA |
| 1384 | 14539 | 27614 | 1.92 | 5.0E-65 | 7661951 | NT | Homo sapiens KIAA0156 gene product (KIAA0156), mRNA |
| 2223 | 15357 | 28487 | 1.07 | 6.0E-65 | AB033768.1 | NT | Homo sapiens hPAD-cbonyl0 mRNA for peptidylarginine deiminase type I, complete cds |
| 3328 | 16501 | 29520 | 1.79 | 5.0E-65 | 4507848 | NT | Homo sapiens ubiquitin specific protease 13 (isopeptidase T-3) (USP13) mRNA |
| 7008 | 20144 | 33583 | 1.38 | 5.0E-65 | 4504608 | NT | Homo sapiens ubiquitin specific protease 13 (isopeptidase T-3) (USP13) mRNA |
| 10884 | 23718 | 37324 | 1.36 | 5.0E-65 | AF008668.1 | NT | Homo sapiens interferon-related developmental regulator 1 (IFRD1), mRNA |
| 198 | 13421 | 26452 | 1.3 | 4.0E-65 | AL120419.1 | EST_HUMAN | Multiple sclerosis associated retrovirus polyprotein (pcr) mRNA, partial cds |
| 764 | 13945 | 26991 | 1.23 | 4.0E-65 | AI266468.1 | EST_HUMAN | DKFZp781G108_r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp781G108 5' |
| 764 | 13945 | 26992 | 1.23 | 4.0E-65 | AI266468.1 | EST_HUMAN | qm46a01.x1 Soares_placenta_8to9weeks_2NbhHP8to9W Homo sapiens cDNA clone IMAGE:1891800 3' |
| 1103 | 14288 | 27326 | 1.44 | 4.0E-65 | 4826736 | NT | qm46a01.x1 Soares_placenta_8to9weeks_2NbhHP8to9W Homo sapiens cDNA clone IMAGE:1891800 3' |
| 1515 | 14688 | 27751 | 24.91 | 4.0E-65 | 4500369 | NT | Homo sapiens fragile X mental retardation, autosomal homolog 1 (FXR1), mRNA |
| 2413 | 16543 | 28670 | 1.02 | 4.0E-65 | BE221469.1 | EST_HUMAN | Homo sapiens ribosomal protein L34 (RPL34) mRNA |
| 6284 | 19457 | 32807 | 4.96 | 4.0E-65 | AB033093.1 | NT | hu25e04.x1 NCI_CGAP_Mel16 Homo sapiens cDNA clone IMAGE:3171102 3' |
| 6284 | 19457 | 32808 | 4.96 | 4.0E-65 | AB033093.1 | NT | hu25e04.x1 NCI_CGAP_Mel16 Homo sapiens cDNA clone IMAGE:3171102 3' |
| 7233 | 20317 | 33760 | 0.66 | 4.0E-65 | AY008372.1 | NT | Homo sapiens mRNA for KIAA1287 protein, partial cds |
| 7266 | 20349 | 33801 | 6.04 | 4.0E-65 | M16879.1 | NT | Homo sapiens oysterol binding protein-related protein 3 (ORP3) mRNA, complete cds |
| 7368 | 20447 | 33910 | 2.3 | 4.0E-65 | U40372.1 | NT | Human clabindin 27 gene, exons 10 and 11, and L1 and Alu repeats |
| 7721 | 20785 | 34273 | 0.65 | 4.0E-65 | U40372.1 | NT | Homo sapiens hypothetical protein FLJ22087 (FLJ22087), mRNA |
| 7721 | 20785 | 34274 | 0.65 | 4.0E-65 | U40372.1 | NT | Human 3',5' cyclic nucleotide phosphodiesterase (HSPDE1C3A) mRNA, partial cds |
| 7993 | 21043 | 34535 | 0.67 | 4.0E-65 | U39866.1 | NT | Human 3',5' cyclic nucleotide phosphodiesterase (HSPDE1C3A) mRNA, partial cds |
| 8025 | 21108 | 34624 | 0.83 | 4.0E-65 | 5453765 | NT | Human MAP kinase kinase 6 (MKK6) mRNA, complete cds |
| 8025 | 21108 | 34625 | 0.83 | 4.0E-65 | 5453765 | NT | Homo sapiens mei (chicken)-like 2 (NELL2), mRNA |
| 8348 | 22422 | 35976 | 0.88 | 4.0E-65 | 11429127 | NT | Homo sapiens mei (chicken)-like 2 (NELL2), mRNA |
| | | | | | | | Homo sapiens Janus kinase 2 (a protein tyrosine kinase) (JAK2), mRNA |

Table 4
Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 10808 | 23841 | | 2.12 | 4.0E-65 | AJ277546.2 | NT | Homo sapiens WEE1 gene for protein kinase and partial ZNF143 gene for zinc finger transcription factor |
| 11360 | 24422 | 38078 | 1.92 | 4.0E-65 | AF119840.1 | NT | Homo sapiens PRO1474 mRNA, complete cds |
| 12628 | 14268 | 27326 | 2.03 | 4.0E-65 | 4828735 | NT | Homo sapiens fragile X mental retardation, autosomal homolog 1 (FXR1), mRNA |
| 13201 | 13421 | 26462 | 1.26 | 4.0E-65 | AL120419.1 | EST_HUMAN | DKFZp761G108_r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761G108 5' |
| 100 | 13336 | 26364 | 0.65 | 3.0E-65 | 5031978 | NT | Homo sapiens pre-B-cell colony-enhancing factor (PBEF) mRNA |
| 1260 | 15690 | | 18.37 | 3.0E-65 | X78932.1 | NT | H. sapiens HZF9 mRNA for zinc finger protein |
| 1889 | 14741 | 27822 | 4.52 | 3.0E-65 | 4504628 | NT | Homo sapiens immunoglobulin superfamily, member 3 (IGSF3) mRNA, and translated products |
| 1888 | 15014 | 28122 | 1.31 | 3.0E-65 | AI000592.1 | EST_HUMAN | MSR1 repetitive element |
| 3350 | 16522 | 29538 | 1.24 | 3.0E-65 | 4504950 | NT | Homo sapiens laminin, beta 1 (LAMB1), mRNA |
| 3815 | 16975 | 28978 | 1.08 | 3.0E-65 | AI000592.1 | EST_HUMAN | ov23f03.a1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1638173 3' similar to contains element |
| 4773 | 17908 | 30891 | 1.38 | 3.0E-65 | 6912385 | NT | MSR1 repetitive element |
| 10274 | 23309 | 36905 | 1.61 | 3.0E-65 | BE787368.1 | EST_HUMAN | Homo sapiens rab8 GTPase activating protein (GAP and centrosome-associated) (GAPCENA), mRNA |
| 11872 | 23900 | 37523 | 8.41 | 3.0E-65 | AA430008.1 | EST_HUMAN | 601479686F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3882405 5' |
| 3480 | 16657 | 28670 | 7.53 | 2.0E-65 | BF680294.1 | EST_HUMAN | zw65a06.t1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:781042 5' |
| 6668 | 19825 | | 3.73 | 2.0E-65 | BE263373.1 | EST_HUMAN | 602166062F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4295866 5' |
| 7282 | 20365 | 33818 | 20.82 | 2.0E-65 | BF576922.1 | EST_HUMAN | 601180883F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3534741 5' |
| 9048 | 22125 | 35698 | 1.2 | 2.0E-65 | AK024463.1 | NT | 602134359F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4289285 5' |
| 9048 | 22125 | 35699 | 1.2 | 2.0E-65 | AK024463.1 | NT | Homo sapiens mRNA for FLJ00056 protein, partial cds |
| 10892 | 23978 | 37608 | 1.48 | 2.0E-65 | 11419247 | NT | Homo sapiens mRNA for FLJ00056 protein, partial cds |
| 12241 | 25184 | | 6.27 | 2.0E-65 | AA307604.1 | EST_HUMAN | Homo sapiens SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily d, member 3 (SMARCD3), mRNA |
| 12748 | 29506 | | 3.89 | 2.0E-65 | BF246089.1 | EST_HUMAN | EST1178755 Colon carcinoma (HCC) cell line Homo sapiens cDNA 5' end similar to similar to endogenous retrovirus |
| 93 | 13328 | | 0.89 | 1.0E-65 | BF125544.1 | EST_HUMAN | 601854033F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4073769 5' |
| 552 | 13745 | 28770 | 1.43 | 1.0E-65 | 7657495 | NT | 601763488F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:4026501 5' |
| 1889 | 15033 | 28141 | 3.31 | 1.0E-65 | AB026898.1 | NT | Homo sapiens putative Rab5 GTP/GTP exchange factor homologue (RABEX5), mRNA |
| 2098 | 15238 | 28350 | 1.48 | 1.0E-65 | AB040946.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 3458 | 16825 | 28845 | 0.8 | 1.0E-65 | BE466681.1 | EST_HUMAN | Homo sapiens mRNA for KIAA1513 protein, partial cds |
| 4105 | 17259 | 30259 | 2.07 | 1.0E-65 | 4504082 | NT | h22409.X1 NC1 CGAP_G08 Homo sapiens cDNA clone IMAGE:320888 3' |
| | | | | | | | Homo sapiens glypican 4 (GPC4) mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 4105 | 17259 | 30260 | 2.07 | 1.0E-65 | 4504082 | NT | Homo sapiens glycylalanine 4 (GPC4) mRNA |
| 4323 | 17466 | 30451 | 2.53 | 1.0E-65 | AW029340.1 | EST_HUMAN | wx06cd09.x1 NCL CGAP_Ges4 Homo sapiens cDNA clone IMAGE:2543152 3' |
| 4323 | 17466 | 30452 | 2.53 | 1.0E-65 | AW029340.1 | EST_HUMAN | wx06cd09.x1 NCL CGAP_Ges4 Homo sapiens cDNA clone IMAGE:2543152 3' |
| 5143 | 19266 | 31235 | 1.57 | 1.0E-65 | AW238282.1 | EST_HUMAN | xp20c01.x1 NCL CGAP_HN10 Homo sapiens cDNA clone IMAGE:2740896 3' |
| 5143 | 19266 | 31236 | 1.57 | 1.0E-65 | AW238282.1 | EST_HUMAN | xp20c01.x1 NCL CGAP_HN10 Homo sapiens cDNA clone IMAGE:2740896 3' |
| 5400 | 18602 | 31672 | 0.86 | 1.0E-65 | BE089508.1 | EST_HUMAN | QV0-BT0702-170400-184-009 BT0702 Homo sapiens cDNA |
| 5400 | 18602 | 31673 | 0.88 | 1.0E-65 | BE089509.1 | EST_HUMAN | QV0-BT0702-170400-184-009 BT0702 Homo sapiens cDNA |
| 5594 | 18789 | 31837 | 0.58 | 1.0E-65 | A1243739.1 | EST_HUMAN | q188h07.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1854109 3' similar to TR:Q07823 |
| 8448 | 21529 | 35057 | 1.5 | 1.0E-65 | AW820481.1 | EST_HUMAN | Q07823 MAC30 PROTEIN; |
| 8448 | 21529 | 35058 | 1.5 | 1.0E-65 | AW820481.1 | EST_HUMAN | QV2-ST0288-140200-042-112 ST0288 Homo sapiens cDNA |
| 8475 | 21558 | 35088 | 0.66 | 1.0E-65 | BE732118.1 | EST_HUMAN | QV2-ST0288-140200-042-112 ST0288 Homo sapiens cDNA |
| 8475 | 21558 | 35089 | 0.66 | 1.0E-65 | BE732118.1 | EST_HUMAN | 601566124F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3841012 5' |
| 8514 | 21595 | 35129 | 2.04 | 1.0E-65 | AU141295.1 | EST_HUMAN | 601566124F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3841012 5' |
| 8514 | 21595 | 35130 | 2.04 | 1.0E-65 | AU141295.1 | EST_HUMAN | 601566124F1 NIH_MGC_21 Homo sapiens cDNA clone THYRO1000358 5' |
| 9041 | 22120 | 35662 | 1.01 | 1.0E-65 | BF688707.1 | EST_HUMAN | AU141295 THYRO1 Homo sapiens cDNA clone THYRO1000358 5' |
| 9222 | 22300 | 36843 | 1.33 | 1.0E-65 | AU129040.1 | EST_HUMAN | 602126239F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4283313 5' |
| 9222 | 22300 | 36844 | 1.33 | 1.0E-65 | AU129040.1 | EST_HUMAN | AU129040 NT2RP2 Homo sapiens cDNA clone NT2RP2004714 5' |
| 9231 | 22309 | | 2.79 | 1.0E-65 | 11431894 | NT | AU129040 NT2RP2 Homo sapiens cDNA clone NT2RP2004714 5' |
| 9309 | 22385 | 35937 | 0.55 | 1.0E-65 | 7682227 | NT | Homo sapiens insulin 1,4,5-triphosphate receptor, type 1 (ITPR1), mRNA |
| 9678 | 22640 | 36210 | 6.5 | 1.0E-65 | A191716.1 | EST_HUMAN | Homo sapiens KIAA0656 gene product (KIAA0656), mRNA |
| 10089 | 23127 | 36730 | 1.32 | 1.0E-65 | AU153793.1 | EST_HUMAN | q456a02.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1733450 3' similar to gb:M29581 ZINC |
| 10509 | 23544 | 37155 | 0.65 | 1.0E-65 | AA089559.1 | EST_HUMAN | FINGER PROTEIN 9 (HUMAN); contains MER19.11 MER19 repetitive element; |
| 10796 | 23829 | 37453 | 1.23 | 1.0E-65 | AB037832.1 | NT | AU153793 NT2RP3 Homo sapiens cDNA clone NT2RP3004016 3' |
| 10885 | 23869 | 37599 | 1.91 | 1.0E-65 | M25167.1 | NT | z175a04.t1 Soares_placental_gland_N3HPG Homo sapiens cDNA clone IMAGE:382734 5' |
| 11016 | 24095 | 37734 | 9.39 | 1.0E-65 | 4508660 | NT | Homo sapiens mRNA for KIAA1411 protein, partial cds |
| 11395 | 24456 | 38118 | 1.9 | 1.0E-65 | BF688707.1 | EST_HUMAN | Human platelet factor 4 variation 1 (PF4var1) gene, complete cds |
| 11486 | 24545 | 38217 | 2.56 | 1.0E-65 | A162107.1 | EST_HUMAN | Homo sapiens ribosomal protein L7a (RPL7A) mRNA |
| 12292 | 25217 | | 2.38 | 1.0E-65 | 11418041 | NT | 602126239F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4283313 5' |
| 12391 | 25276 | 32078 | 3.77 | 1.0E-65 | 11418322 | NT | is76a08.x1 NCL CGAP_G08 Homo sapiens cDNA clone IMAGE:2237170 3' similar to gb:L15533_ma1 |
| 73 | 13310 | 26334 | 0.9 | 9.0E-66 | AL160311.1 | NT | PANCREATITIS ASSOCIATED PROTEIN 1 PRECURSOR (HUMAN); |
| 73 | 13310 | 26335 | 0.9 | 9.0E-66 | AL160311.1 | NT | Homo sapiens TNF-inducible protein CG12-1 (CG12-1), mRNA |
| | | | | | | | Homo sapiens cadherin EGF LAG seven-pass G-type receptor 1 (CELSR1), mRNA |
| | | | | | | | Novel human gene mapping to chromosome 22 |
| | | | | | | | Novel human gene mapping to chromosome 22 |

Page 352 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 1385 | 14540 | 27615 | 1.53 | 9.0E-68 | 5031980 | NT | Homo sapiens 26S proteasome-associated pad1 homolog (POH1) mRNA |
| 1385 | 14540 | 27616 | 1.53 | 9.0E-68 | 5031980 | NT | Homo sapiens 26S proteasome-associated pad1 homolog (POH1) mRNA |
| 1613 | 14666 | | 6.93 | 9.0E-66 | M87299.1 | NT | Human transposon-like element, partial |
| 4007 | 17184 | 30171 | 0.86 | 9.0E-66 | M72393.1 | NT | Human calcium-dependent phospholipid-binding protein (PLA2) mRNA, complete cds |
| 4007 | 17184 | 30172 | 0.86 | 9.0E-66 | M72393.1 | NT | Human calcium-dependent phospholipid-binding protein (PLA2) mRNA, complete cds |
| 11628 | 24708 | | 1.6 | 7.0E-66 | BE064410.1 | EST_HUMAN | RC4-BT0311-141199-011-h06 BT0311 Homo sapiens cDNA |
| 4485 | 17625 | 30605 | 1.16 | 6.0E-66 | A924663.1 | EST_HUMAN | wn57h07.x1 NCI_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2449597 3' similar to WP:F15G9.4A |
| 4485 | 17625 | 30606 | 1.16 | 6.0E-66 | A924663.1 | EST_HUMAN | wn57h07.x1 NCI_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2449597 3' similar to WP:F15G9.4A |
| 4485 | 17625 | 30607 | 1.16 | 6.0E-66 | A924663.1 | EST_HUMAN | wn57h07.x1 NCI_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2449597 3' similar to WP:F15G9.4A |
| 8929 | 21709 | | 0.46 | 6.0E-66 | BE178663.1 | EST_HUMAN | CE18595; |
| 11427 | 24488 | 38162 | 3.22 | 6.0E-66 | X89181.1 | NT | H-sepiens mRNA for ribosomal protein L31 |
| 1398 | 14552 | 27627 | 2.45 | 5.0E-66 | BE064410.1 | EST_HUMAN | RC4-BT0311-141199-011-h06 BT0311 Homo sapiens cDNA |
| 9494 | 22551 | 36113 | 8.4 | 5.0E-66 | 11420557 | NT | Homo sapiens thyroid hormone receptor binding protein (AIB3), mRNA |
| 813 | 13992 | 27046 | 1.8 | 4.0E-66 | 6879816 | NT | Mus musculus fragile X mental retardation syndrome 1 homolog (Fmr1), mRNA |
| 1775 | 14924 | 28018 | 0.97 | 4.0E-66 | AW897798.1 | EST_HUMAN | RC1-NN0063-100500-022-022-022 NN0063 Homo sapiens cDNA |
| 2355 | 15486 | 28618 | 5.3 | 4.0E-66 | X89211.1 | NT | H-sepiens DNA for endogenous retroviral like element |
| 2543 | 15688 | | 3.15 | 4.0E-66 | AJ223364.1 | NT | Homo sapiens germ-line DNA upstream of Jkappa locus |
| 4905 | 18035 | | 5.02 | 4.0E-66 | 9639487 | NT | Human endogenous retrovirus, complete genome |
| 5668 | 18892 | 32147 | 3.57 | 4.0E-66 | 11428643 | NT | Homo sapiens methylene tetrahydrofolate dehydrogenase (NAD+ dependent), methenyltetrahydrofolate |
| 5861 | 19051 | 32358 | 0.87 | 4.0E-66 | AW939119.1 | EST_HUMAN | cyclohydrolase (MTHFD2), mRNA |
| 6995 | 18614 | 31606 | 4.91 | 4.0E-66 | AW956473.1 | EST_HUMAN | QV1-DT0069-110200-067-g10 DT0069 Homo sapiens cDNA |
| 7281 | 20364 | 33817 | 7.88 | 4.0E-66 | U78168.1 | NT | EST377546 IMAGE resequences, MAGI Homo sapiens cDNA |
| 7807 | 18852 | 32147 | 0.83 | 4.0E-66 | 11428643 | NT | Homo sapiens cAMP-regulated guanine nucleotide exchange factor 1 (cAMP-GEF1) mRNA, complete cds |
| 8269 | 21351 | 34987 | 6.14 | 4.0E-66 | 11421638 | NT | Homo sapiens methylene tetrahydrofolate dehydrogenase (NAD+ dependent), methenyltetrahydrofolate |
| 8327 | 21409 | 34936 | 0.7 | 4.0E-66 | X57147.1 | NT | cyclohydrolase (MTHFD2), mRNA |
| 10896 | 23980 | 37612 | 1.49 | 4.0E-66 | BF507493.1 | EST_HUMAN | Homo sapiens hypothetical protein FLJ20116 (FLJ20116), mRNA |
| 11690 | 24739 | 38430 | 1.63 | 4.0E-66 | AB023215.1 | NT | Human endogenous retrovirus pHE.1 (ERV9) |
| | | | | | | | U1-H-BW1-err-a-10-Q-UJ.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3070747 3' |
| | | | | | | | Homo sapiens mRNA for KIAA0998 protein, partial cds |

Page 353 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 1458 | 14611 | 27692 | 14.93 | 3.0E-66 | 4502093 | NT | Homo sapiens solute carrier family 25 (mitochondrial carrier, adenine nucleotide translocator), member 5 (SLC25A5), nuclear gene encoding mitochondrial protein, mRNA |
| 1458 | 14611 | 27693 | 14.93 | 3.0E-66 | 4502093 | NT | Homo sapiens solute carrier family 25 (mitochondrial carrier, adenine nucleotide translocator), member 5 (SLC25A5), nuclear gene encoding mitochondrial protein, mRNA |
| 2039 | 15180 | 28290 | 1.04 | 3.0E-66 | N55323.1 | EST_HUMAN | yz27g12.1 Soares_multiple_sclerosis_2NBHMSP Homo sapiens cDNA clone IMAGE:284328 5' similar to SW:H2B1_TIGCA P35068 HISTONE H2B.1/H2B.2. [2] PIR-B56812; |
| 2039 | 15180 | 28291 | 1.04 | 3.0E-66 | N55323.1 | EST_HUMAN | yz27g12.1 Soares_multiple_sclerosis_2NBHMSP Homo sapiens cDNA clone IMAGE:284328 5' similar to SW:H2B1_TIGCA P35068 HISTONE H2B.1/H2B.2. [2] PIR-B56812; |
| 2039 | 15180 | 28292 | 1.04 | 3.0E-66 | N55323.1 | EST_HUMAN | yz27g12.1 Soares_multiple_sclerosis_2NBHMSP Homo sapiens cDNA clone IMAGE:284328 5' similar to SW:H2B1_TIGCA P35068 HISTONE H2B.1/H2B.2. [2] PIR-B56812; |
| 2772 | 15967 | 28997 | 3.44 | 3.0E-66 | 11141880 | NT | Homo sapiens TGF-beta1-induced transcription factor 2 (TGIF2), mRNA |
| 3186 | 16361 | 29367 | 7.29 | 3.0E-66 | 7682223 | NT | Homo sapiens KIAA0849 gene product (KIAA0849), mRNA |
| 5693 | 18778 | 31823 | 0.85 | 3.0E-66 | AB020689.1 | NT | Homo sapiens mRNA for KIAA0892 protein, partial cds |
| 5695 | 18889 | 32180 | 0.65 | 3.0E-66 | M13975.1 | NT | Homo sapiens protein kinase C beta-II type (PRKCB1) mRNA, complete cds |
| 5693 | 19081 | 32391 | 1.72 | 3.0E-66 | 11417948 | NT | Homo sapiens NIPSNAP, C. elegans, homolog 1 (NIPSNAP1), mRNA |
| 5893 | 19081 | 32392 | 1.72 | 3.0E-66 | 11417948 | NT | Homo sapiens NIPSNAP, C. elegans, homolog 1 (NIPSNAP1), mRNA |
| 7685 | 20657 | 34134 | 1.74 | 3.0E-66 | X92211.1 | NT | Homo sapiens germine immunoglobulin heavy chain, variable region, (19-1) |
| 8725 | 22780 | 36361 | 0.59 | 3.0E-66 | AK024453.1 | NT | Homo sapiens mRNA for FLJ00045 protein, variable region, (19-1) |
| 8920 | 22680 | 36547 | 0.52 | 3.0E-66 | 11417118 | NT | Homo sapiens KIAA0433 protein (KIAA0433), mRNA |
| 10278 | 23313 | 38911 | 0.85 | 3.0E-66 | 7019480 | NT | Homo sapiens probocedherin beta 1 (PCDH-beta1), mRNA |
| 10741 | 23774 | 37389 | 0.95 | 3.0E-66 | AF155059.1 | NT | Homo sapiens molybdenum cofactor biosynthesis protein E (MCOBP-E), mRNA, complete cds |
| 11800 | 24780 | 38487 | 4.55 | 3.0E-66 | 6453949 | NT | Homo sapiens protein phosphatase 2, regulatory subunit B (B59), alpha isoform (PPP2R5A) mRNA |
| 52 | 13291 | 26304 | 1.48 | 2.0E-66 | 7657334 | NT | Homo sapiens Misshep/NIK-related kinase (MINK), mRNA |
| 52 | 13281 | 26305 | 1.48 | 2.0E-66 | 7657334 | NT | Homo sapiens Misshep/NIK-related kinase (MINK), mRNA |
| 435 | 13235 | 26235 | 0.87 | 2.0E-66 | 4505524 | NT | Homo sapiens origin recognition complex, subunit 5 (yeast homolog)-like (ORC5L) mRNA, and translated products |
| 435 | 13235 | 26236 | 0.87 | 2.0E-66 | 4505524 | NT | Homo sapiens origin recognition complex, subunit 5 (yeast homolog)-like (ORC5L) mRNA, and translated products |
| 1873 | 15017 | 28126 | 2.02 | 2.0E-66 | AL163301.2 | NT | Homo sapiens chromosome 21 segment HS21C101 |
| 3039 | 16216 | 29238 | 1.07 | 2.0E-66 | X55959.1 | NT | H. sapiens pseudogene for the low affinity IL-8 receptor |
| 3609 | 18773 | 29788 | 0.85 | 2.0E-66 | 8823290 | NT | Homo sapiens hypothetical protein FLJ20309 (FLJ20309), mRNA |
| 3861 | 17021 | 30019 | 0.78 | 2.0E-66 | AL117233.1 | NT | Novel human gene mapping to chromosome 1 |
| 4176 | 17326 | 30317 | 0.89 | 2.0E-66 | AF108389.1 | NT | Homo sapiens sodium/calcium exchanger isoform NaCa3 (NCX1) mRNA, complete cds |

Page 354 of 550
Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 4778 | 17913 | 30888 | 13.88 | 2.0E-66 | AJ133267.2 | NT | Homo sapiens HLA-B gene for human leukocyte antigen B |
| 4778 | 17913 | 30889 | 13.88 | 2.0E-66 | AJ133267.2 | NT | Homo sapiens HLA-B gene for human leukocyte antigen B |
| 5937 | 19123 | 32430 | 0.82 | 2.0E-66 | AW988854.1 | EST_HUMAN | EST380930 MAGI resequences, MAGJ Homo sapiens cDNA |
| 5937 | 19123 | 32437 | 0.82 | 2.0E-66 | AW988854.1 | EST_HUMAN | EST380930 MAGI resequences, MAGJ Homo sapiens cDNA |
| 9048 | 22127 | 35871 | 3.57 | 2.0E-66 | N45480.1 | EST_HUMAN | Y59602.1 Soares_multiple_sclerosis_2NBHMS Homo sapiens cDNA clone IMAGE:277828 5' |
| 12637 | 26147 | | 2.84 | 2.0E-66 | 11418318 | NT | Homo sapiens G-2 and S-phase expressed 1 (GTSE1), mRNA |
| 1717 | 14867 | | 1.14 | 1.0E-66 | BE887173.1 | EST_HUMAN | 601608376F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3909831 5' |
| 2959 | 16136 | 29153 | 1.47 | 1.0E-66 | AV717817 | EST_HUMAN | AV717817 DCB Homo sapiens cDNA clone DCBADC07 5' |
| 2959 | 16136 | 29164 | 1.47 | 1.0E-66 | AV717817.1 | EST_HUMAN | AV717817 DCB Homo sapiens cDNA clone DCBADC07 5' |
| 4504 | 16136 | 29153 | 4.18 | 1.0E-66 | AV717817.1 | EST_HUMAN | AV717817 DCB Homo sapiens cDNA clone DCBADC07 5' |
| 4504 | 16136 | 29154 | 4.18 | 1.0E-66 | AV717817.1 | EST_HUMAN | AV717817 DCB Homo sapiens cDNA clone DCBADC07 5' |
| 5497 | 16996 | 31712 | 5.97 | 1.0E-66 | BF673088.1 | EST_HUMAN | 602152996F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4294151 5' |
| 5900 | 19089 | 32402 | 0.67 | 1.0E-66 | BE765232.1 | EST_HUMAN | IL2-NT0101-280700-116-E04 NT0101 Homo sapiens cDNA |
| 5900 | 19089 | 32403 | 0.67 | 1.0E-66 | BE765232.1 | EST_HUMAN | IL2-NT0101-280700-116-E04 NT0101 Homo sapiens cDNA |
| 7078 | 20731 | 33548 | 1.53 | 1.0E-66 | BF328623.1 | EST_HUMAN | RC6-BN0193-010900-034-G06 BN0193 Homo sapiens cDNA |
| 8652 | 21732 | 35271 | 1.2 | 1.0E-66 | AA668858.1 | EST_HUMAN | aa80604.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:827262 3' |
| 9626 | 22881 | 36250 | 0.64 | 1.0E-66 | AA0718928.1 | EST_HUMAN | xs67e12.1 Soares retina N204HR Homo sapiens cDNA clone IMAGE:363118 5' |
| 10882 | 23617 | 37223 | 0.93 | 1.0E-66 | AV748749.1 | EST_HUMAN | AV748749 NPC Homo sapiens cDNA clone NPCBVA05 5' |
| 10882 | 23617 | 37224 | 0.93 | 1.0E-66 | AV748749.1 | EST_HUMAN | AV748749 NPC Homo sapiens cDNA clone NPCBVA05 5' |
| 11185 | 24754 | 37889 | 2.24 | 1.0E-66 | AF111167.2 | NT | Homo sapiens Jun dimerization protein gene, partial cds; cfos gene, complete cds; and unknown gene |
| 12398 | 25278 | | 1.92 | 9.0E-67 | 11418177 | NT | Homo sapiens Ran GTPase activating protein 1 (RANGAP1), mRNA |
| 5034 | 18162 | | 0.91 | 8.0E-67 | M78158.1 | EST_HUMAN | EST01750 Subtracted Hippocampus, Striatum (cat. #338205) Homo sapiens cDNA clone HHCPN31 similar to L1 repetitive element |
| 391 | 13628 | 26665 | 1.63 | 7.0E-67 | AW162232.1 | EST_HUMAN | au75d02.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2782083 3' similar to gb:M37104 |
| 1413 | 14567 | 27641 | 2.66 | 7.0E-67 | AA383416.1 | EST_HUMAN | ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN); |
| 1585 | 14737 | 27817 | 1.39 | 7.0E-67 | W85947.1 | EST_HUMAN | EST98812 Testis 1 Homo sapiens cDNA 5' and similar to C. elegans hypothetical protein, cosmid ZK353 |
| 1585 | 14737 | 27818 | 1.39 | 7.0E-67 | W85947.1 | EST_HUMAN | EST98812 Testis 1 Homo sapiens cDNA 5' and similar to C. elegans hypothetical protein, cosmid ZK353 |
| 2089 | 15229 | 28350 | 1.94 | 7.0E-67 | 7657243 | NT | ZH5605.1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:416049 5' |
| 2089 | 15229 | 28351 | 1.94 | 7.0E-67 | 7657243 | NT | ZH5605.1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:416049 5' |
| 2871 | 13628 | 26665 | 1.36 | 7.0E-67 | AW162232.1 | EST_HUMAN | Homo sapiens inositol 1,3,4-triphosphate 5/6 kinase (ITPK1), mRNA |
| | | | | | | | Homo sapiens inositol 1,3,4-triphosphate 5/6 kinase (ITPK1), mRNA |
| | | | | | | | au75d02.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2782083 3' similar to gb:M37104 |
| | | | | | | | ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN); |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6205 | 19380 | 32730 | 0.88 | 7.0E-67 | 10190895 | NT | Homo sapiens zinc finger protein 304 (ZNF304), mRNA |
| 6400 | 19569 | 32930 | 1.87 | 7.0E-67 | 11425572 | NT | Homo sapiens adaptor-related protein complex 2, beta 1 subunit (AP2B1), mRNA |
| 6400 | 19569 | 32931 | 1.67 | 7.0E-67 | 11425572 | NT | Homo sapiens adaptor-related protein complex 2, beta 1 subunit (AP2B1), mRNA |
| 6863 | 20015 | 33425 | 1.12 | 7.0E-67 | 4885084 | NT | Homo sapiens ATPase, H ⁺ transporting, lysosomal (vacuolar proton pump) non-catalytic accessory protein 1A (110116KO) (ATP6N1A), mRNA |
| 7809 | 20864 | 34358 | 0.89 | 7.0E-67 | 11419212 | NT | Homo sapiens mitochondrial carrier family protein (LOC55972), mRNA |
| 7809 | 20864 | 34359 | 0.89 | 7.0E-67 | 11419212 | NT | Homo sapiens mitochondrial carrier family protein (LOC55972), mRNA |
| 8288 | 21340 | 34857 | 0.52 | 7.0E-67 | 4826895 | NT | Homo sapiens phosphodiesterase (nucleoside pyrophosphatase 3 (PDNIP3) mRNA |
| 8518 | 21599 | 35134 | 0.7 | 7.0E-67 | 4857732 | NT | Homo sapiens latent transforming growth factor beta binding protein 2 (LTBP2) mRNA |
| 9132 | 22211 | 35758 | 0.68 | 7.0E-67 | 10335044 | NT | Homo sapiens retinaldehyde dehydrogenase 2 (RALDH2), mRNA |
| 11585 | 24920 | | 2.42 | 7.0E-67 | 11434579 | NT | Homo sapiens fucosyltransferase 8 (alpha(1,6) fucosyltransferase) (FUT8), mRNA |
| 11973 | 24958 | 38660 | 2.02 | 7.0E-67 | U82486.1 | NT | Human cytochrome oxidase subunit VIa (COX6A1P) pseudogene, complete cds |
| 12168 | 25131 | 38829 | 4.05 | 7.0E-67 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 12168 | 25131 | 38830 | 4.05 | 7.0E-67 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 12684 | 25441 | 32053 | 1.92 | 7.0E-67 | AB011389.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 13106 | 25721 | | 1.74 | 7.0E-67 | 11421527 | NT | Homo sapiens calcium channel, voltage-dependent, alpha 2/delta subunit 1 (CACNA2D1), mRNA |
| 573 | 13765 | 28788 | 1.09 | 6.0E-67 | X68968.1 | NT | H. sapiens mRNA for acetyl-CoA carboxylase |
| 818 | 13997 | 27061 | 2.4 | 6.0E-67 | Z1727.1 | NT | Homo sapiens PMP69 gene, exons 3,4,5,6 & 7 |
| 1302 | 14468 | 27624 | 1.07 | 6.0E-67 | Y14920.1 | NT | Homo sapiens PMP69 gene, exons 3,4,5,6 & 7 |
| 3237 | 16411 | 29426 | 1.39 | 6.0E-67 | 4808434 | NT | Homo sapiens retinoblastoma 1 (including osteosarcoma) (RB1) mRNA |
| 3524 | 16889 | 29698 | 1.32 | 6.0E-67 | 4607332 | NT | Homo sapiens Synapsin III (SYNS) mRNA, and translated products |
| 3524 | 16889 | 29699 | 1.32 | 6.0E-67 | 4607332 | NT | Homo sapiens Synapsin III (SYNS) mRNA, and translated products |
| 4243 | 17389 | 30376 | 0.92 | 6.0E-67 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 4827 | 17860 | 30947 | 2.22 | 6.0E-67 | 7657020 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 4827 | 17860 | 30948 | 2.22 | 6.0E-67 | 7657020 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 13224 | 17865 | 28788 | 2.74 | 6.0E-67 | X68968.1 | NT | Homo sapiens DKFZp434P211 protein (DKFZP434P211), mRNA |
| 3283 | 18467 | 29488 | 2.26 | 5.0E-67 | AF009860.1 | NT | H. sapiens mRNA for acetyl-CoA carboxylase |
| 11230 | 24289 | | 2.17 | 5.0E-67 | BED10038.1 | EST_HUMAN | Homo sapiens T cell receptor beta locus, TCRBV7S3A2 to TCRBV12S2 region |
| 1359 | 14314 | 27588 | 1.13 | 4.0E-67 | R80819.1 | EST_HUMAN | PM3-BN0176-100400-001-g04 BN0176 Homo sapiens cDNA |
| 8211 | 21283 | 34813 | 0.8 | 4.0E-67 | A1733032.1 | EST_HUMAN | yo02a11.1 Scores adult brain N2b-HB55Y Homo sapiens cDNA clone IMAGE:167263 5' |
| 8576 | 21657 | | 1.48 | 4.0E-67 | BF357321.1 | EST_HUMAN | q26c06.x6 NCL CGAP_K143 Homo sapiens cDNA clone IMAGE:1483286 3' similar to SW:Z33A_HUMAN |
| | | | | | | | Q06730 ZINC FINGER PROTEIN 33A ; |
| | | | | | | | RCO-HT0934-150900-028-c03 HT0934 Homo sapiens cDNA |

Page 356 of 550

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 11318 | 24361 | | 1.76 | 4.0E-67 | AA714294.1 | EST_HUMAN | nv08a01.s1 NCL CGAP_SS1 Homo sapiens cDNA clone IMAGE:1238472 3' similar to TR:O10385 O10385 |
| 2874 | 13935 | 26862 | 2.03 | 3.0E-67 | AA333768.1 | EST_HUMAN | PRO-POL-OUTPASE POLYPROTEIN; |
| 3542 | 16707 | 29718 | 2.05 | 3.0E-67 | BE064410.1 | EST_HUMAN | EST137893 Embryo, 9 week Homo sapiens cDNA 5' and |
| 4816 | 17949 | 30934 | 2.98 | 3.0E-67 | AW869156.1 | EST_HUMAN | RC4-BT0311-141189-011-408 BT0311 Homo sapiens cDNA |
| 4846 | 17978 | | 1.38 | 3.0E-67 | AL163279.2 | NT | MR3-SN0066-040500-008-401 SN0066 Homo sapiens cDNA |
| | | | | | | | Homo sapiens chromosome 21 segment HS21C079 |
| 8376 | 21458 | 34980 | 1.37 | 3.0E-67 | BF198088.1 | EST_HUMAN | hr81f05.x1 NCL CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3134913 3' similar to SW:RHOP_MOUSE |
| 11537 | 24563 | | 15.42 | 3.0E-67 | AA927874.1 | EST_HUMAN | Q61085 GTP-RHO BINDING PROTEIN 1; |
| 193 | 13416 | 26445 | 0.59 | 2.0E-67 | BE348354.1 | EST_HUMAN | am18b07.s1 Soares_NFL_I_GBC_S1 Homo sapiens cDNA clone IMAGE:1541365 3' |
| 888 | 14044 | 27109 | 5.29 | 2.0E-67 | AW816405.1 | EST_HUMAN | hw18g09.x1 NCL CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3183198 3' similar to WP:F23H11.9 |
| 1126 | 14284 | | 2.48 | 2.0E-67 | AF167400.1 | NT | CE09817; |
| 1933 | 16076 | 28179 | 1.23 | 2.0E-67 | BE303037.1 | EST_HUMAN | QV4-ST0234-181189-037-405 ST0234 Homo sapiens cDNA |
| 1933 | 16076 | 28180 | 1.23 | 2.0E-67 | BE303037.1 | EST_HUMAN | Homo sapiens double stranded RNA activated protein kinase (PKR) gene, exons 2a, 2, 3, and 4 |
| 2458 | 16685 | 28713 | 1.18 | 2.0E-67 | AF309861.1 | NT | ba72g05.y1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2905978 5' similar to TR:O84892 O84892 |
| 2502 | 16629 | 28749 | 1.37 | 2.0E-67 | 4759785 | NT | KIAA0798 PROTEIN; |
| 3557 | 16722 | 29737 | 3.78 | 2.0E-67 | AA625755.1 | EST_HUMAN | Homo sapiens KRAB zinc finger protein ZFOR mRNA, complete cds |
| 4109 | 17263 | 30263 | 3.13 | 2.0E-67 | AL163300.2 | NT | Homo sapiens developmentally regulated GTP-binding protein 1 (DRG1), mRNA |
| 6197 | 16372 | 32723 | 0.83 | 2.0E-67 | AL049784.1 | NT | zu91g01.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:745392 3' |
| 6252 | 16426 | 32772 | 4.95 | 2.0E-67 | BF240758.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C100 |
| 6425 | 16593 | 32958 | 1.74 | 2.0E-67 | AB051763.1 | NT | Novel human gene mapping to chromosome 13 |
| 6425 | 16593 | 32959 | 1.74 | 2.0E-67 | AB051763.1 | NT | 60187535F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4081893 5' |
| 6779 | 16834 | 33330 | 0.64 | 2.0E-67 | AL120842.1 | EST_HUMAN | Homo sapiens mRNA for NADPH-cytochrome P-450 reductase, complete cds |
| 8755 | 21834 | 35374 | 1.09 | 2.0E-67 | AA334809.1 | EST_HUMAN | Homo sapiens mRNA for NADPH-cytochrome P-450 reductase, complete cds |
| 8755 | 21834 | 35375 | 1.09 | 2.0E-67 | AA334809.1 | EST_HUMAN | DKFZp761A229_r1 781 (synonym: hary2) Homo sapiens cDNA clone DKFZp761A229 5' |
| 9167 | 22275 | 35812 | 1.31 | 2.0E-67 | AW602635.1 | EST_HUMAN | EST138850 Embryo, 9 week Homo sapiens cDNA 5' end similar to cerebellin |
| 9167 | 22275 | 35813 | 1.31 | 2.0E-67 | AW602635.1 | EST_HUMAN | EST138850 Embryo, 9 week Homo sapiens cDNA 5' and similar to similar to cerebellin |
| 9766 | 22763 | 36332 | 0.55 | 2.0E-67 | AV731333.1 | EST_HUMAN | RC4-BT0568-170100-011-c07 BT0568 Homo sapiens cDNA |
| 9910 | 22950 | 36536 | 0.99 | 2.0E-67 | AW263624.1 | EST_HUMAN | AV731333 HTF Homo sapiens cDNA clone HTFAR003 5' |
| 10848 | 23881 | 37501 | 0.53 | 2.0E-67 | AA928089.1 | EST_HUMAN | UJH-B12-ahn-e-10-QULr1 NCL CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2727283 3' |
| 11141 | 24213 | 37840 | 1.75 | 2.0E-67 | BF685788.1 | EST_HUMAN | on8b07.s1 Soares_NFL_I_GBC_S1 Homo sapiens cDNA clone IMAGE:1663541 3' |
| | | | | | | | 602140470F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4301709 5' |

Page 357 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 11310 | 26230 | | 2.55 | 2.0E-67 | 11436448 | NT | Homo sapiens KIAA0985 protein (KIAA0985), mRNA |
| 11504 | 24562 | 38240 | 2.05 | 2.0E-67 | BE295714.1 | EST_HUMAN | 601175762F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3631038 5' |
| 11743 | 23929 | 37555 | 2.44 | 2.0E-67 | BF377169.1 | EST_HUMAN | PM2-TN0103-040900-001-c02 TN0103 Homo sapiens cDNA |
| 12527 | 25988 | 31770 | 2.47 | 2.0E-67 | 11418189 | NT | Homo sapiens thyraid autoantigen 70kD (Ku antigen) (G22P1), mRNA |
| 263 | 13482 | 26514 | 2.37 | 1.0E-67 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 726 | 13908 | 26948 | 0.95 | 1.0E-67 | AA702784.1 | EST_HUMAN | z180b04.s1 Soares fetal liver spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:448016 3' |
| 4833 | 17668 | 30954 | 0.73 | 1.0E-67 | BF439247.1 | EST_HUMAN | ncab108.x1 Soares NSF F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3' |
| 11268 | 24337 | | 1.47 | 1.0E-67 | BE010038.1 | EST_HUMAN | PM3-BN0176-100400-001-g04 BN0176 Homo sapiens cDNA |
| 12105 | 25085 | | 3.44 | 9.0E-68 | 4506060 | NT | Homo sapiens mitogen-activated protein kinase 6 (MAPK6), mRNA |
| 2245 | 15378 | 28506 | 8.3 | 8.0E-68 | BE870732.1 | EST_HUMAN | 601448558F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3852264 5' |
| 3973 | 17130 | 30133 | 5.75 | 8.0E-68 | AA209456.1 | EST_HUMAN | z182h10.r1 Strategene hNT neuron (#937233) Homo sapiens cDNA clone IMAGE:648163 5' similar to SW_SAV_SULAC Q07690 SAV PROTEIN. ; |
| 3973 | 17130 | 30134 | 5.75 | 8.0E-68 | AA209456.1 | EST_HUMAN | z182h10.r1 Strategene hNT neuron (#937233) Homo sapiens cDNA clone IMAGE:648163 5' similar to SW_SAV_SULAC Q07690 SAV PROTEIN. ; |
| 8293 | 21375 | 34895 | 0.58 | 7.0E-68 | A1810505.1 | EST_HUMAN | WB89603.x1 NCI CGAP P128 Homo sapiens cDNA clone IMAGE:2312860 3' |
| 10668 | 23700 | 37310 | 6.43 | 6.0E-68 | 11422088 | NT | Homo sapiens brefeldin A-inhibited guanine nucleotide-exchange protein 2 (BIG2), mRNA |
| 11417 | 24478 | 38143 | 1.31 | 6.0E-68 | AF133901.1 | NT | Homo sapiens killer inhibitory receptor 2-2-1 (KIR221) and killer inhibitory receptor 2-2-2 (KIR222) genes, partial cds |
| 12668 | 25579 | | 2.84 | 6.0E-68 | BE612554.1 | EST_HUMAN | 601452087F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3855761 5' |
| 13165 | 25755 | 31927 | 1.45 | 6.0E-68 | BF310675.1 | EST_HUMAN | 001894635F2 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4124144 5' |
| 825 | 15986 | 27069 | 2 | 5.0E-68 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 825 | 15986 | 27069 | 2 | 5.0E-68 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 842 | 14020 | 27076 | 4.93 | 5.0E-68 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 842 | 14020 | 27077 | 4.93 | 5.0E-68 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 3216 | 16390 | 29401 | 2.99 | 5.0E-68 | AB037852.1 | NT | Homo sapiens mRNA for KIAA1431 protein, partial cds |
| 4287 | 17440 | | 0.84 | 5.0E-68 | 4826987 | NT | Homo sapiens retinoblastoma-binding protein 2 (RBBP2) mRNA |
| 2594 | 15719 | 28836 | 1 | 4.0E-68 | 11421388 | NT | Homo sapiens serine carboxypeptidase 1 precursor protein (HSCP1), mRNA |
| 2594 | 15719 | 28837 | 1 | 4.0E-68 | 11421388 | NT | Homo sapiens transcription factor NRF (NRF), mRNA |
| 5090 | 18218 | | 7.11 | 4.0E-68 | P04406 | SWISSPROT | GLYCERALDEHYDE 3-PHOSPHATE DEHYDROGENASE, LIVER |
| 6085 | 19267 | 32696 | 0.69 | 4.0E-68 | AF157063.1 | NT | Homo sapiens sedlin (SEDL) gene, exon 4 |
| 6912 | 20227 | 33659 | 6.03 | 4.0E-68 | 11055991 | NT | Homo sapiens serine carboxypeptidase 1 precursor protein (HSCP1), mRNA |
| 6912 | 20227 | 33660 | 6.03 | 4.0E-68 | 11055991 | NT | Homo sapiens serine carboxypeptidase 1 precursor protein (HSCP1), mRNA |
| 7859 | 20913 | 34418 | 0.84 | 4.0E-68 | 7661683 | NT | Homo sapiens DKFZP586L0724 protein (DKFZP586L0724), mRNA |

Page 358 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|-----------------------------|-------------------------------|--|
| 9240 | 22317 | 35859 | 5.59 | 4.0E-68 | D63479.2 | NT | Homo sapiens mRNA for KIAA0145 protein, partial cds |
| 9240 | 22317 | 35860 | 5.59 | 4.0E-68 | D63479.2 | NT | Homo sapiens mRNA for KIAA0145 protein, partial cds |
| 9380 | 22455 | 36018 | 3.17 | 4.0E-68 | AB040918.1 | NT | Homo sapiens mRNA for KIAA1485 protein, partial cds |
| 11261 | 24320 | 37960 | 1.64 | 4.0E-68 | 4506282 | NT | Homo sapiens protein tyrosine phosphatase type IVA, member 1 (PTP4A1) mRNA |
| 11251 | 24320 | 37961 | 1.64 | 4.0E-68 | 4506282 | NT | Homo sapiens protein tyrosine phosphatase type IVA, member 1 (PTP4A1) mRNA |
| 11434 | 24495 | 38161 | 1.72 | 4.0E-68 | AB040948.1 | NT | Homo sapiens SEC14 (S. cerevisiae)-like 2 (SEC14L2), mRNA |
| 12728 | 25485 | 32028 | 1.17 | 4.0E-68 | 11417968 | NT | Homo sapiens G-protein coupled receptor GPR73 (Gpr73) mRNA, complete cds |
| 3751 | 16912 | 28918 | 3.54 | 3.0E-68 | AF236082.1 | NT | Mus musculus G-protein coupled receptor GPR73 (Gpr73) mRNA, complete cds |
| 9656 | 21059 | | 3.5 | 3.0E-68 | AB342323.1 | EST_HUMAN | q33802.x1 Soares_fetal_Jung_NHL19W Homo sapiens cDNA clone IMAGE:1950291 3' similar to TR:O80828 O80828 |
| 10720 | 23753 | 37359 | 1.35 | 3.0E-68 | F28784.1 | EST_HUMAN | THR12 THR repetitive element |
| 13111 | 25902 | | 2.83 | 3.0E-68 | AW839485.1 | EST_HUMAN | HSPD18178 HM3 Homo sapiens cDNA clone s3000023D09 |
| 2825 | 18474 | | 29.7 | 2.0E-68 | D00522.1 | NT | QV4-DT0072J10200-036-109 DT0072 Homo sapiens cDNA |
| 4135 | 17288 | 30283 | 0.79 | 2.0E-68 | BE675788.1 | EST_HUMAN | Cricetus longicaudatus mRNA for EF-1 alpha, complete cds |
| 4803 | 17938 | 30928 | 2.33 | 2.0E-68 | AB009681.1 | NT | 711502.x1 NCL_CGAP_QLL1 Homo sapiens cDNA clone IMAGE:3294747 3' similar to TR:O80828 O80828 |
| 7016 | 20151 | | 9.21 | 2.0E-68 | R49088.1 | EST_HUMAN | HYPOTHETICAL 88.8 KD PROTEIN ; |
| 7203 | 20074 | 33486 | 3.81 | 2.0E-68 | BF036318.1 | EST_HUMAN | Homo sapiens gene for actin receptor type IIB, complete cds |
| 7527 | 20800 | 34074 | 0.68 | 2.0E-68 | BF338745.1 | EST_HUMAN | Y03950.4.1 Soares Infant brain (NIH) Homo sapiens cDNA clone IMAGE:34896 3' |
| 9150 | 22228 | 36772 | 0.56 | 2.0E-68 | Q05859 | SWISSPROT | Y03950.4.1 Soares Infant brain (NIH) Homo sapiens cDNA clone IMAGE:3862034 5' |
| 11521 | 24577 | 38255 | 1.49 | 2.0E-68 | BF330894.1 | EST_HUMAN | IL3-CT0534-180900-273-A01 CT0534 Homo sapiens cDNA |
| 12285 | 26170 | | 1.89 | 2.0E-68 | BE807376.1 | EST_HUMAN | FORMIN 4 (LIMB DEFORMITY PROTEIN) |
| 13182 | 26776 | | 1.32 | 2.0E-68 | AW016803.1 | EST_HUMAN | QVC-BT0074-130989-014-g04 BT0074 Homo sapiens cDNA |
| 81 | 13316 | 26344 | 0.83 | 1.0E-68 | 4505222 | NT | 601437367F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3922182 5' |
| 307 | 13623 | 26557 | 16.49 | 1.0E-68 | AW819405.1 | EST_HUMAN | U-H-BIO-aam-b-05-0-JJ.st NCL_CGAP_Sub1 Homo sapiens cDNA clone IMAGE:2708924 3' |
| 2326 | 15458 | 28590 | 1.24 | 1.0E-68 | AB011149.1 | NT | Homo sapiens meningoangioma (disrupted in balanced translocation) 1 (MNT), mRNA |
| 2326 | 15458 | 28591 | 1.24 | 1.0E-68 | AB011149.1 | NT | QV4-ST0234-181189-037-405 ST0234 Homo sapiens cDNA |
| 4117 | 17271 | 30270 | 0.9 | 1.0E-68 | BE266032.1 | EST_HUMAN | Homo sapiens mRNA for KIAA0577 protein, complete cds |
| 5140 | 19263 | 31231 | 0.71 | 1.0E-68 | AA897343.1 | EST_HUMAN | Homo sapiens mRNA for KIAA0577 protein, complete cds |
| 5437 | 18637 | 31616 | 1.92 | 1.0E-68 | | NT | 601177002F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3652344 5' |
| 7853 | 20908 | 34412 | 0.76 | 1.0E-68 | 11436716 | NT | 601177002F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:1460518 3' |
| 10385 | 23420 | 37027 | 0.45 | 1.0E-68 | 11419429 | NT | aa47g12.s1 Soares_NFL_T_GBC_ST Homo sapiens cDNA clone IMAGE:1460518 3' |
| 11089 | 24163 | 37799 | 2.16 | 1.0E-68 | 11418868 | NT | Homo sapiens cell recognition molecule Caspr2 (KIAA0869), mRNA |
| | | | | | | | Homo sapiens sentrin/SUMO-specific protease (SENP1), mRNA |
| | | | | | | | Homo sapiens similar to ectonucleotide pyrophosphatase/phosphodiesterase 3 (H. sapiens) (LOC63214), mRNA |
| | | | | | | | Homo sapiens phosphodiesterase 7B (PDE7B), mRNA |

Page 359 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 11089 | 24163 | 37800 | 2.18 | 1.0E-68 | 11418669 | NT | Homo sapiens phosphodiesterase 7B (PDE7B), mRNA |
| 11142 | 24214 | 37841 | 2.81 | 1.0E-68 | L76416.1 | NT | Homo sapiens MIF2 suppressor (HSMIT3), mRNA, complete cds |
| 11468 | 24527 | 38200 | 1.7 | 1.0E-68 | 11433277 | NT | Homo sapiens myosin IC (MYO1C), mRNA |
| 11580 | 24634 | 38313 | 2.83 | 1.0E-68 | U50319.1 | NT | Human protein kinase C substrate 80K-H (PRKCSH) gene, exon 4-5 |
| 11590 | 24634 | 38314 | 2.83 | 1.0E-68 | U50319.1 | NT | Human protein kinase C substrate 80K-H (PRKCSH) gene, exon 4-5 |
| 11693 | 24948 | 38653 | 1.81 | 1.0E-68 | 11418431 | NT | Homo sapiens CGI-78 protein (LOC51632), mRNA |
| 11693 | 24948 | 38654 | 1.81 | 1.0E-68 | 11418431 | NT | Homo sapiens CGI-78 protein (LOC51632), mRNA |
| 12849 | 13316 | 26344 | 2.53 | 1.0E-68 | 4505222 | NT | Homo sapiens meningioma (disrupted in balanced translocation) 1 (MN1), mRNA |
| 13100 | 28092 | 31661 | 3.05 | 1.0E-68 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 13104 | 25755 | | 1.88 | 1.0E-68 | 11418213 | NT | Homo sapiens ADP-ribosylation factor GTPase activating protein 1 (ARFGAP1), mRNA |
| 22 | 13260 | 26260 | 2.42 | 9.0E-69 | 5031976 | NT | Homo sapiens pre-B-cell colony-enhancing factor (PBEF), mRNA |
| 22 | 13260 | 26281 | 2.42 | 9.0E-69 | 5031976 | NT | Homo sapiens pre-B-cell colony-enhancing factor (PBEF), mRNA |
| 1053 | 14219 | 27275 | 0.89 | 9.0E-69 | 5031980 | NT | Homo sapiens 26S proteasome-associated pad1 homolog (POH1), mRNA |
| 1053 | 14219 | 27276 | 0.89 | 9.0E-69 | 5031980 | NT | Homo sapiens 26S proteasome-associated pad1 homolog (POH1), mRNA |
| 4246 | 17392 | 30380 | 0.6 | 9.0E-69 | 4757867 | NT | Homo sapiens v-rat murine sarcoma viral oncogene homolog B1 (BRAF), mRNA |
| 4296 | 17411 | 30397 | 0.89 | 9.0E-69 | 4504010 | NT | Homo sapiens glutamate-cysteine ligase (gamma-glutamylcysteine synthetase), regulatory (30.8KD) (GLCLR), mRNA |
| 11128 | 24200 | | 7.86 | 9.0E-69 | AU117241.1 | EST_HUMAN | AU117241 HEMBA1 Homo sapiens cDNA clone HEMBA1000968 5' |
| 3473 | 16840 | | 1.28 | 8.0E-69 | AJ237744.1 | NT | Homo sapiens RIB1R gene (partial), exon 12 |
| 6482 | 19849 | 33011 | 4.44 | 7.0E-69 | 9968912 | NT | Homo sapiens actin-related protein 3-beta (ARP3BETA), mRNA |
| 8047 | 21130 | 34849 | 1.85 | 6.0E-69 | A192764.1 | EST_HUMAN | q62h01.x1 Soares, fetal_lung, Nhl-L19W Homo sapiens cDNA clone IMAGE:1743801 3' similar to |
| 8047 | 21130 | 34850 | 1.85 | 6.0E-69 | A192764.1 | EST_HUMAN | q62h01.x1 Soares, fetal_lung, Nhl-L19W Homo sapiens cDNA clone IMAGE:1743801 3' similar to |
| 9174 | 22252 | 35795 | 1.05 | 6.0E-69 | AA826039.1 | EST_HUMAN | gbl.L11566 60S RIBOSOMAL PROTEIN L18 (HUMAN); |
| 533 | 13728 | | 1.18 | 4.0E-69 | A1873630.1 | EST_HUMAN | cd60a03.a1 NCL CGAP_GCBT Homo sapiens cDNA clone IMAGE:1372300 3' |
| 5881 | 25812 | 32378 | 1.53 | 4.0E-69 | BE581063.1 | EST_HUMAN | wm26h11.x1 NCL CGAP_U4 Homo sapiens cDNA clone IMAGE:2437125 3' |
| 6966 | 19152 | 32467 | 4.62 | 4.0E-69 | A1764973.1 | EST_HUMAN | 601344705F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3677841 5' |
| 6764 | 19920 | 33315 | 3.17 | 4.0E-69 | 4557732 | NT | wh57b06.x1 NCL CGAP_Kd11 Homo sapiens cDNA clone IMAGE:2384819 3' similar to TR:055137 |
| 6764 | 19920 | 33316 | 3.17 | 4.0E-69 | 4557732 | NT | O58137 ACYL-COA THIOESTERASE. ; |
| 9115 | 22184 | 35739 | 0.55 | 4.0E-69 | AU119634.1 | EST_HUMAN | Homo sapiens latent transforming growth factor beta binding protein 2 (LTBP2), mRNA |
| 397 | 13634 | 26672 | 5.24 | 3.0E-69 | BE268012.1 | EST_HUMAN | Homo sapiens latent transforming growth factor beta binding protein 2 (LTBP2), mRNA |
| 827 | 13812 | 26834 | 2.78 | 3.0E-69 | AF221712.1 | NT | AU119634 HEMBA1 Homo sapiens cDNA clone HEMBA1006283 5' |
| | | | | | | | 601110371F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3351352 5' |
| | | | | | | | Homo sapiens Smad- and Olf-interacting zinc finger protein mRNA, partial cds |

Page 360 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 1586 | 14738 | | 1.12 | 3.0E-69 | T80514.1 | EST_HUMAN | y08a02.r1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:24880 5' similar to SP-A48839 |
| 2449 | 15577 | | 2.18 | 3.0E-69 | 5729910 | NT | A48836 SPEGF III-EGF REPEAT-CONTAINING FIBROPELIN-LIKE PROTEIN - SEA URCHIN ; |
| 5357 | 18483 | 38823 | 1.37 | 3.0E-69 | 11418185 | NT | Homo sapiens lymphatic vessel endothelial hyaluronan receptor 1 (LYVE-1) mRNA |
| 7629 | 20602 | 34076 | 0.78 | 3.0E-69 | AF095703.1 | NT | Homo sapiens acylase 2, mitochondrial (ACO2), mRNA |
| 7578 | 20650 | 34128 | 1.74 | 3.0E-69 | U52351.1 | NT | Homo sapiens short chain L-3-hydroxyacyl-CoA dehydrogenase precursor (HADHSC) gene, nuclear gene |
| 7724 | 20788 | 34277 | 8.4 | 3.0E-69 | AF288075.1 | NT | encoding mitochondrial protein, complete cds |
| 8567 | 21648 | 35180 | 1.33 | 3.0E-69 | AW138946.1 | EST_HUMAN | Homo sapiens TRAF6-binding protein T6BP mRNA, complete cds |
| 8967 | 22046 | | 0.74 | 3.0E-69 | AA376399.1 | EST_HUMAN | UIH-B11-ecv-9-01-Q-U1.1 NC1 CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2715840 3' |
| 9613 | 22698 | 36238 | 1.74 | 3.0E-69 | X13223.1 | NT | EST188807 HSC172 cells II Homo sapiens cDNA 5' end similar to ribosomal protein S18 |
| 9733 | 22788 | 36372 | 3.15 | 3.0E-69 | X06233.1 | NT | H. sapiens mRNA for N-acetylglucosaminide-(beta 1-4)-galactosyltransferase |
| 10034 | 23072 | 36672 | 0.56 | 3.0E-69 | 5730036 | NT | Human mRNA for calcium-binding protein in macrophages (MRP-14) macrophage migration inhibitory factor (MIF)-related protein |
| 10877 | 23962 | 37590 | 2.74 | 3.0E-69 | 11432120 | NT | Homo sapiens SEC10 (S. cerevisiae)-like 1 (SEC10L1), mRNA |
| 11080 | 24155 | | 7.88 | 3.0E-69 | AA376399.1 | EST_HUMAN | Homo sapiens ribosomal protein S15a (RPS15A), mRNA |
| 12112 | 25092 | 38785 | 1.77 | 3.0E-69 | AB011541.1 | NT | EST188807 HSC172 cells II Homo sapiens cDNA 5' end similar to ribosomal protein S18 |
| 12112 | 25092 | 38789 | 1.77 | 3.0E-69 | AB011541.1 | NT | Homo sapiens mRNA for MEGF8, partial cds |
| 12306 | 25223 | | 3.1 | 3.0E-69 | 11418157 | NT | Homo sapiens HGC6.2 protein (HGC6.2), mRNA |
| 131 | 13612 | 26651 | 1.09 | 2.0E-69 | AF160252.1 | NT | Homo sapiens KIAA0553 protein gene, complete cds; and alpha1b protein gene, partial cds |
| 131 | 13612 | 26652 | 1.09 | 2.0E-69 | AF160252.1 | NT | Homo sapiens KIAA0553 protein gene, complete cds; and alpha1b protein gene, partial cds |
| 417 | 13612 | 26651 | 4.42 | 2.0E-69 | AF160252.1 | NT | Homo sapiens KIAA0553 protein gene, complete cds; and alpha1b protein gene, partial cds |
| 417 | 13612 | 26652 | 4.42 | 2.0E-69 | AF160252.1 | NT | Homo sapiens KIAA0553 protein gene, complete cds; and alpha1b protein gene, partial cds |
| 1934 | 15077 | 28181 | 1.79 | 2.0E-69 | BE257857.1 | EST_HUMAN | Homo sapiens KIAA0553 protein gene, complete cds; and alpha1b protein gene, partial cds |
| 2906 | 16084 | | 4.14 | 2.0E-69 | AA431157.1 | EST_HUMAN | 601109444F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3360074 5' |
| 8761 | 21830 | 35368 | 0.95 | 2.0E-69 | AA114270.1 | EST_HUMAN | zw71g02.r1 Soares testis NHT Homo sapiens cDNA clone IMAGE:781682 5' |
| 1080 | 14832 | | 1 | 1.0E-69 | BF330124.1 | EST_HUMAN | zm28g01.r1 Stratagene pancreas (8837208) Homo sapiens cDNA clone IMAGE:627088 5' |
| 1739 | 14888 | 27980 | 2.4 | 1.0E-69 | AF033768.1 | NT | FCO-BN0305-200600-031-06 BN0305 Homo sapiens cDNA |
| 6137 | 18280 | | 0.63 | 1.0E-69 | BE403094.1 | EST_HUMAN | Rattus norvegicus brain specific cortactin-binding protein CBP90 mRNA, partial cds |
| 6175 | 19361 | 32697 | 0.83 | 1.0E-69 | BE02501.1 | EST_HUMAN | 601301284F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3635781 5' |
| 6175 | 19361 | 32698 | 0.83 | 1.0E-69 | BE02501.1 | EST_HUMAN | 601675788F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3988532 5' |
| 6738 | 19894 | 33285 | 4.36 | 1.0E-69 | AW393969.1 | EST_HUMAN | 601675788F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3988532 5' |
| 6958 | 20271 | 33709 | 1.22 | 1.0E-69 | 7662263 | NT | QV0-TT0070-031198-045-c07 TT0070 Homo sapiens cDNA |

Page 361 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 6968 | 20271 | 33710 | 1.22 | 1.0E-69 | 765263 | NT | Homo sapiens KIAA0716 gene product (KIAA0716), mRNA |
| 6968 | 20271 | 33710 | 1.22 | 1.0E-69 | AB032973.1 | NT | Homo sapiens mRNA for KIAA1147 protein, partial cds |
| 6978 | 20204 | 33631 | 2.91 | 1.0E-69 | AB032973.1 | NT | Homo sapiens mRNA for KIAA1147 protein, partial cds |
| 6978 | 20204 | 33632 | 2.91 | 1.0E-69 | AB032973.1 | EST_HUMAN | Homo sapiens cDNA clone IMAGE:3810814 5' |
| 7021 | 20157 | 33578 | 0.51 | 1.0E-69 | BE531007.1 | EST_HUMAN | 60127832F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3810814 5' |
| 7021 | 20157 | 33578 | 0.51 | 1.0E-69 | BE531007.1 | EST_HUMAN | 60127832F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3810814 5' |
| 7021 | 20157 | 33578 | 0.51 | 1.0E-69 | BE531007.1 | EST_HUMAN | TGBAP1E2678 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBBAP2678 |
| 10377 | 23412 | 37020 | 5.01 | 1.0E-69 | BE245070.1 | EST_HUMAN | TGBAP1E2678 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBBAP2678 |
| 10377 | 23412 | 37021 | 5.01 | 1.0E-69 | BE245070.1 | EST_HUMAN | cDNA clone TCBBAP2678 |
| 10625 | 23659 | 37268 | 0.91 | 1.0E-69 | BF529429.1 | EST_HUMAN | 602043782F1 NCI_CGAP_Bm57 Homo sapiens cDNA clone IMAGE:4181325 5' |
| 11112 | 24184 | | 35.41 | 1.0E-69 | 4504918 | NT | Homo sapiens keratin 8 (KRT8) mRNA |
| 12237 | 25181 | 38352 | 1.88 | 1.0E-69 | BF126837.1 | EST_HUMAN | Homo sapiens cDNA clone IMAGE:4025785 5' |
| 12873 | 25449 | | 3.4 | 1.0E-69 | AI809894.1 | EST_HUMAN | wf64608.xt Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2360390 3' similar to contains Alu repetitive element;contains element MIR repetitive element; |
| 2409 | 16081 | 28687 | 1.56 | 8.0E-70 | AA230303.1 | EST_HUMAN | nc13d12.r1 NCI_CGAP_Py1 Homo sapiens cDNA clone IMAGE:1008023 |
| 4493 | 17633 | 30675 | 1.64 | 8.0E-70 | L77696.1 | NT | Homo sapiens DGSI-mRNA, 3' end |
| 1856 | 15002 | 28108 | 2.42 | 7.0E-70 | AJ497807.1 | EST_HUMAN | hm8901.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2165305 3' |
| 1856 | 15002 | 28109 | 2.42 | 7.0E-70 | AJ497807.1 | EST_HUMAN | hm8901.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2165305 3' |
| 1856 | 15002 | 28109 | 2.42 | 7.0E-70 | AA282955.1 | EST_HUMAN | x15H04.r1 NCI_CGAP_GC81 Homo sapiens cDNA clone IMAGE:713239 5' |
| 1894 | 15127 | 28229 | 1.67 | 7.0E-70 | AA282955.1 | EST_HUMAN | x15H04.r1 NCI_CGAP_GC81 Homo sapiens cDNA clone IMAGE:713239 5' |
| 2123 | 13281 | | 5.13 | 7.0E-70 | | NT | Homo sapiens tumor suppressor deleted in oral cancer-related 1 (DOC-IR) mRNA |
| 4340 | 17483 | 30465 | 4.29 | 7.0E-70 | 4757723 | NT | Homo sapiens adenylate cyclase 3 (ADCY3) mRNA |
| 5600 | 18705 | 31844 | 6.4 | 7.0E-70 | AB032369.1 | NT | Homo sapiens MIST mRNA, partial cds |
| 5600 | 18795 | 31845 | 5.4 | 7.0E-70 | AB032369.1 | NT | Homo sapiens MIST mRNA, partial cds |
| 7084 | 20117 | 33631 | 1.91 | 7.0E-70 | AJ000052.1 | NT | Homo sapiens gene encoding splicing factor SF1, exons 2-8 |
| 7846 | 20995 | 34906 | 0.64 | 7.0E-70 | 11417308 | NT | Homo sapiens titin immunoglobulin domain protein (myosin) (TTID), mRNA |
| 8628 | 21706 | 35242 | 2.55 | 7.0E-70 | AB037715.1 | NT | Homo sapiens mRNA for KIAA1294 protein, partial cds |
| 8628 | 21706 | 35243 | 2.55 | 7.0E-70 | AB037715.1 | NT | Homo sapiens mRNA for KIAA1294 protein, partial cds |
| 8919 | 21698 | 35538 | 3.8 | 7.0E-70 | M74099.1 | NT | Human displacement protein (CCAT) mRNA |
| 8919 | 21698 | 35539 | 3.8 | 7.0E-70 | M74099.1 | NT | Human displacement protein (CCAT) mRNA |
| 9359 | 22433 | 36991 | 5.59 | 7.0E-70 | XG6841.1 | NT | Human PBX3 mRNA |
| 9359 | 22433 | 36992 | 5.59 | 7.0E-70 | XG6841.1 | NT | Human PBX3 mRNA |
| 9359 | 22433 | 36992 | 5.59 | 7.0E-70 | XG6841.1 | NT | Homo sapiens phosphatid scramblase 1 gene, exon 1 and 5' flanking region |
| 9359 | 22433 | 36992 | 5.59 | 7.0E-70 | XG6841.1 | NT | Homo sapiens karyopherin beta 2b, transporin (TRN2), mRNA |
| 9636 | 21078 | 34590 | 2.88 | 7.0E-70 | AF153715.1 | NT | Homo sapiens karyopherin beta 2b, transporin (TRN2), mRNA |
| 9636 | 21078 | 34590 | 2.88 | 7.0E-70 | AF153715.1 | NT | Homo sapiens karyopherin beta 2b, transporin (TRN2), mRNA |
| 9860 | 21102 | 34617 | 1.7 | 7.0E-70 | 11525994 | NT | Homo sapiens karyopherin beta 2b, transporin (TRN2), mRNA |
| 9860 | 21102 | 34618 | 1.7 | 7.0E-70 | 11525994 | NT | Homo sapiens karyopherin beta 2b, transporin (TRN2), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 9857 | 22897 | 38480 | 0.93 | 7.0E-70 | 4557624 | NT | Homo sapiens glutamate-cysteine ligase (gamma-glutamylcysteine synthetase), catalytic (72.8KD) (GLCLC) mRNA |
| 10505 | 23540 | 37149 | 0.85 | 7.0E-70 | AB036429.1 | NT | Homo sapiens NDST4 mRNA for N-deacetylase/N-sulfotransferase 4, complete cds |
| 10505 | 23540 | 37150 | 0.85 | 7.0E-70 | AB036429.1 | NT | Homo sapiens NDST4 mRNA for N-deacetylase/N-sulfotransferase 4, complete cds |
| 11328 | 24392 | 38039 | 1.77 | 7.0E-70 | 11428885 | NT | Homo sapiens spastic paraplegia 4 (autosomal dominant spasin) (SPG4), mRNA |
| 11328 | 24392 | 38040 | 1.77 | 7.0E-70 | 11428885 | NT | Homo sapiens spastic paraplegia 4 (autosomal dominant spasin) (SPG4), mRNA |
| 11897 | 24885 | 38583 | 2.37 | 7.0E-70 | 11526319 | NT | Homo sapiens HIR (histone cell cycle regulation defective, S. cerevisiae) homolog A (HIRA), mRNA |
| 11897 | 24885 | 38584 | 2.37 | 7.0E-70 | 11526319 | NT | Homo sapiens HIR (histone cell cycle regulation defective, S. cerevisiae) homolog A (HIRA), mRNA |
| 894 | 14070 | 27135 | 2.51 | 6.0E-70 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 2205 | 15339 | 28466 | 2.29 | 6.0E-70 | M30938.1 | NT | Human Ku (p70/p80) subunit mRNA, complete cds |
| 4629 | 17765 | 30747 | 0.7 | 6.0E-70 | AF164121.1 | NT | Homo sapiens sodium-dependent high-affinity dicarboxylate transporter (NADC3) mRNA, complete cds |
| 2618 | 16066 | 28654 | 1.78 | 5.0E-70 | 7682307 | NT | Homo sapiens KIAA0792 gene product (KIAA0792), mRNA |
| 2618 | 16066 | 28655 | 1.78 | 5.0E-70 | 7682307 | NT | Homo sapiens KIAA0792 gene product (KIAA0792), mRNA |
| 12247 | 25188 | 33454 | 5 | 5.0E-70 | BE16034.1 | EST_HUMAN | MF3-HT0487-150200-115-a08 HT0487 Homo sapiens cDNA |
| 6894 | 20045 | 33454 | 1.03 | 4.0E-70 | T06037.1 | EST_HUMAN | EST03828 Fetal brain, Stragena (cat#936206) Homo sapiens cDNA clone HFBDN25 |
| 6933 | 20248 | 33682 | 1.84 | 4.0E-70 | AW793228.1 | EST_HUMAN | GM4-UM0003-010300-105-p08 UM0003 Homo sapiens cDNA |
| 6933 | 20248 | 33683 | 1.84 | 4.0E-70 | AW793228.1 | EST_HUMAN | GM4-UM0003-010300-105-p08 UM0003 Homo sapiens cDNA |
| 1619 | 14771 | 27853 | 1.71 | 3.0E-70 | BE071796.1 | EST_HUMAN | RC0-BT0522-071299-011-a12 BT0522 Homo sapiens cDNA |
| 1619 | 14771 | 27854 | 1.71 | 3.0E-70 | BE071796.1 | EST_HUMAN | RC0-BT0522-071299-011-a12 BT0522 Homo sapiens cDNA |
| 5270 | 18389 | 31357 | 1.11 | 3.0E-70 | AJ271736.1 | NT | Homo sapiens Xq pseudautosomal region; segment 2/2 |
| 5737 | 18930 | 32227 | 0.59 | 3.0E-70 | 11430988 | NT | Homo sapiens plakophilin 4 (PKP4), mRNA |
| 5737 | 18930 | 32228 | 0.59 | 3.0E-70 | 11430988 | NT | Homo sapiens plakophilin 4 (PKP4), mRNA |
| 6068 | 19248 | 32575 | 1 | 3.0E-70 | AI831975.1 | EST_HUMAN | wh90d03.x1 NCI_CGAP CLL1 Homo sapiens cDNA clone IMAGE:2388005 3' |
| 6503 | 18689 | 33033 | 1.69 | 3.0E-70 | BF685233.1 | EST_HUMAN | 602141591F1 NIH_MGC 49 Homo sapiens cDNA clone IMAGE:4302808 5' |
| 6503 | 18689 | 33034 | 1.69 | 3.0E-70 | BF685233.1 | EST_HUMAN | 602141591F1 NIH_MGC 49 Homo sapiens cDNA clone IMAGE:4302808 5' |
| 10314 | 23349 | 36965 | 0.82 | 3.0E-70 | BE502975.1 | EST_HUMAN | h281h02.x1 NCI_CGAP L124 Homo sapiens cDNA clone IMAGE:3214419 3' |
| 30 | 13277 | 26283 | 1.03 | 2.0E-70 | AF012872.1 | NT | Homo sapiens phosphatidylinositol 4-kinase 230 (p4K230) mRNA, complete cds |
| 707 | 13890 | 26823 | 15.24 | 2.0E-70 | N42101.1 | EST_HUMAN | W07a10.r1 Soares melanocyte 2NBHM Homo sapiens cDNA clone IMAGE:270522 5' similar to SW:D3HL_RAT P29266 3-HYDROXYISOBUTYRATE DEHYDROGENASE PRECURSOR; |

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Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 707 | 13890 | 26924 | 15.24 | 2.0E-70 | N42161.1 | EST_HUMAN | y07a10.r1 Soares melanocyte 2N6HM Homo sapiens cDNA clone IMAGE:270522 5' similar to SW:D3HJ RAT P29286 3-HYDROXYISOBUTYRATE DEHYDROGENASE PRECURSOR: |
| 723 | 13905 | 26947 | 1.85 | 2.0E-70 | A1246899.1 | EST_HUMAN | g551h01.x1 NCL_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2004813 3' |
| 1046 | 14212 | 27269 | 1.36 | 2.0E-70 | 8923699 | NT | Homo sapiens hypothetical protein FLJ20756 (FLJ20756), mRNA |
| 1211 | 14372 | 27432 | 2.18 | 2.0E-70 | 7681983 | NT | Homo sapiens KIAA0183 gene product (KIAA0183), mRNA |
| 1211 | 14372 | 27433 | 2.16 | 2.0E-70 | 7681983 | NT | Homo sapiens KIAA0183 gene product (KIAA0183), mRNA |
| 1441 | 14594 | 27669 | 1.23 | 2.0E-70 | BE487311.1 | EST_HUMAN | h284o12.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3212768 3' |
| | | | 1.07 | 2.0E-70 | AA180093.1 | EST_HUMAN | TR:G1041293 G1041293 D2085.6: |
| 1688 | 14840 | 27924 | 1.07 | 2.0E-70 | AA180093.1 | EST_HUMAN | TR:G1041293 G1041293 D2085.5: |
| 1688 | 14840 | 27925 | 1.07 | 2.0E-70 | AA180093.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C002 |
| 1781 | 14830 | 28023 | 4.92 | 2.0E-70 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| | | | 9.42 | 2.0E-70 | AA064010.1 | EST_HUMAN | z48g04.r1 Soares retina N254HR Homo sapiens cDNA clone IMAGE:380214 5' similar to SW:GAG_HTL1A |
| 2394 | 15525 | | 0.71 | 2.0E-70 | AL133207.2 | NT | P03345 GAG POLYPROTEIN: |
| 3823 | 17082 | 30078 | 5.88 | 2.0E-70 | M69181.1 | NT | Novel human gene mapping to chromosome X |
| 4160 | 17311 | 30307 | 8.42 | 2.0E-70 | X72662.1 | NT | Human nonmuscle myosin heavy chain-B (MYH10), mRNA, partial cds |
| 5632 | 18226 | 31901 | 8.42 | 2.0E-70 | X72662.1 | NT | H. sapiens gene for schwannom (CS8) |
| 5632 | 18226 | 31902 | 8.42 | 2.0E-70 | X72662.1 | NT | H. sapiens gene for schwannom (CS8) |
| 6333 | 19504 | 32882 | 1.23 | 2.0E-70 | AF310105.1 | NT | Homo sapiens NALP1 mRNA, complete cds |
| 6771 | 19928 | 33321 | 2.66 | 2.0E-70 | D12625.1 | NT | Human mRNA for NF1 protein isoform (neurofibromin isoform), complete cds |
| 6806 | 19980 | 33362 | 10.35 | 2.0E-70 | AF123074.1 | NT | Human sapiens cytoplasmic dynein intermediate chain 1 mRNA, complete cds |
| 6806 | 19980 | 33363 | 10.35 | 2.0E-70 | AF123074.1 | NT | Homo sapiens cytoplasmic dynein intermediate chain 1 mRNA, complete cds |
| | | | 1.5 | 2.0E-70 | 114223842 | NT | Homo sapiens sialyltransferase 6 (N-acetylglucosaminide alpha 2,3-sialyltransferase) (SIAT6), mRNA |
| 7136 | 18592 | 31477 | 2.81 | 2.0E-70 | M21741.1 | NT | Human guanine nucleotide-binding protein alpha-subunit gene (G-s-alpha), exons 4 and 5 |
| 8103 | 21185 | 34704 | 0.66 | 2.0E-70 | H47969.1 | EST_HUMAN | Human sapiens emyo-1.6-glucosidase, 4-alpha-glucanotransferase (glycogen debranching enzyme, glycogen storage disease type III) (AGL), mRNA |
| 8417 | 21498 | 35030 | 1.34 | 2.0E-70 | H47969.1 | EST_HUMAN | gy79g02.r1 Soares fetal liver spleen (NFLS) Homo sapiens cDNA clone IMAGE:193682 5' |
| 8960 | 21939 | 36007 | 1.14 | 2.0E-70 | AF123303.1 | NT | Homo sapiens dyncin p82 subunit (LOC51164), mRNA |
| 9370 | 22445 | 36688 | 1.26 | 2.0E-70 | AF123303.1 | NT | Homo sapiens calcium-binding transporter mRNA, partial cds |
| 10342 | 23377 | 38031 | 3.39 | 2.0E-70 | 8923420 | NT | Homo sapiens hypothetical protein FLJ20450 (FLJ20450), mRNA |
| 11324 | 24387 | 38032 | 3.39 | 2.0E-70 | 8923420 | NT | Homo sapiens hypothetical protein FLJ20450 (FLJ20450), mRNA |
| 11324 | 24387 | 38032 | 3.39 | 2.0E-70 | 8923420 | NT | Homo sapiens eukaryotic translation initiation factor 3, subunit 6 (48kD) (EIF356) mRNA |
| 11840 | 24628 | 38628 | 7.78 | 2.0E-70 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 12662 | 25439 | 32050 | 2.42 | 2.0E-70 | 11430460 | NT | |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|-----------------------------|-------------------------------|---|
| 12662 | 25439 | 32051 | 2.42 | 2.0E-70 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 3480 | 16847 | | 3.72 | 1.0E-70 | 4507478 | NT | Homo sapiens transglutaminase 3 (E polypeptide, protein-glutamine-gamma-glutamyltransferase) (TGM3) |
| 9480 | 22537 | | 0.64 | 1.0E-70 | W85795.1 | EST_HUMAN | z655905.r1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:416024 5' |
| 10003 | 23041 | | 0.88 | 1.0E-70 | AA442292.1 | EST_HUMAN | z654033.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:757444 5' |
| 11176 | 24244 | 37877 | 7.61 | 1.0E-70 | AV738538.1 | EST_HUMAN | AV738538 CB Homo sapiens cDNA clone CBLGB10 6' |
| 6065 | 19247 | 32573 | 6.03 | 9.0E-71 | A1143870.1 | EST_HUMAN | qe0401.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1738009 3' similar to TR:O14045 |
| 6065 | 19247 | 32574 | 6.03 | 9.0E-71 | A1143870.1 | EST_HUMAN | qe0401.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1738009 3' similar to TR:O14045 |
| 7175 | 20308 | 33751 | 2.05 | 9.0E-71 | A1654903.1 | EST_HUMAN | Wb52c05.x1 NCL CGAP_G08 Homo sapiens cDNA clone IMAGE:2309288 3' similar to TR:P97213 P97213 |
| 11813 | 20308 | 33751 | 3.47 | 9.0E-71 | A1654903.1 | EST_HUMAN | Wb52c05.x1 NCL CGAP_G08 Homo sapiens cDNA clone IMAGE:2309288 3' similar to TR:P97213 P97213 |
| 9270 | 22346 | | 2.88 | 8.0E-71 | AA171451.1 | EST_HUMAN | CDU2, CDU1, TCDD, TCDB, TCDE, TCDA, TCDC, CDD1, CDD2, CDD3, AND CDD4 GENES. ; |
| 10828 | 23981 | 37484 | 0.53 | 8.0E-71 | AW273820.1 | EST_HUMAN | Wb52c05.x1 NCL CGAP_G08 Homo sapiens cDNA clone IMAGE:2309288 3' similar to TR:P97213 P97213 |
| 7533 | 20608 | 34081 | 7.86 | 7.0E-71 | AA442290.1 | EST_HUMAN | CDU2, CDU1, TCDD, TCDB, TCDE, TCDA, TCDC, CDD1, CDD2, CDD3, AND CDD4 GENES. ; |
| 8677 | 21056 | 35491 | 1.34 | 7.0E-71 | AA705487.1 | EST_HUMAN | Wb52c05.x1 NCL CGAP_G08 Homo sapiens cDNA clone IMAGE:2309288 3' similar to TR:P97213 P97213 |
| 11614 | 24035 | 36353 | 2.2 | 7.0E-71 | AL163210.2 | NT | CDU2, CDU1, TCDD, TCDB, TCDE, TCDA, TCDC, CDD1, CDD2, CDD3, AND CDD4 GENES. ; |
| 2284 | 16416 | 28948 | 7.11 | 5.0E-71 | AF056322.1 | EST_HUMAN | z621d11.r1 Streptococcus neurophilum (#837231) Homo sapiens cDNA clone IMAGE:310101 5' similar to |
| 4235 | 17382 | 30371 | 1.18 | 5.0E-71 | AW816405.1 | EST_HUMAN | TR:G1143061 G1143061 STRAIN XA34 POL ; |
| 6002 | 19187 | 32506 | 1.59 | 5.0E-71 | 11641408 | NT | K24d01.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2814049 3' similar to TR:O64730 |
| 6801 | 19956 | 33356 | 1.4 | 5.0E-71 | 7662209 | NT | O64730 TRANSLANTABILITY ASSOCIATED PROTEIN 1 ; |
| 7060 | 20113 | 33528 | 0.84 | 5.0E-71 | 11431690 | NT | z60106.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:768076 5' |
| 7296 | 20378 | 33836 | 0.82 | 5.0E-71 | M38108.1 | NT | z61a06.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:462228 3' |
| 7679 | 20744 | 34225 | 1.79 | 5.0E-71 | 11528445 | NT | Homo sapiens chromosome 21 segment HS21(C010 |
| 7884 | 20936 | 34442 | 0.8 | 5.0E-71 | 11528445 | NT | Homo sapiens SP100-HMG nuclear subunit (SP100) mRNA, complete cds |
| 7912 | 20663 | 34471 | 20.85 | 5.0E-71 | AF072810.1 | NT | QV4-ST0234-181189-037-405 ST0234 Homo sapiens cDNA |
| 8720 | 21800 | 35335 | 0.56 | 5.0E-71 | 5453777 | NT | Homo sapiens cyclin-dependent kinase 6 (CDK6) mRNA |
| 8720 | 21800 | 35336 | 0.56 | 5.0E-71 | 5453777 | NT | Homo sapiens keratin, hair, acidic, 7 (KRT7A7), mRNA |
| 10116 | 23163 | | 2.06 | 5.0E-71 | X13487.1 | NT | Homo sapiens protein kinase C, beta 1 (PRKCB1), mRNA |
| 10476 | 23511 | 37124 | 0.48 | 5.0E-71 | U70958.1 | NT | Homo sapiens neurofibromatosis protein type 1 mRNA, 3' end of cds |
| | | | | | | | Homo sapiens MAGUK protein p57, Protein Associated with Line 2 (LOC51678), mRNA |
| | | | | | | | Homo sapiens transcription factor WSTF mRNA, complete cds |
| | | | | | | | Homo sapiens nuclear factor related to kappa B binding protein (NFKB) mRNA |
| | | | | | | | Homo sapiens nuclear factor related to kappa B binding protein (NFKB) mRNA |
| | | | | | | | Homo sapiens nuclear factor related to kappa B binding protein (NFKB) mRNA |
| | | | | | | | Human PreA4 gene for Alzheimer's disease A4 amyloid protein precursor (exon 2) |
| | | | | | | | Human arcelin (SAC) gene exon 8 |

Page 365 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 10870 | 23955 | 37584 | 1.45 | 5.0E-71 | 5729900 | NT | Homo sapiens IGF-II mRNA-binding protein 3 (KOC1), mRNA |
| 10943 | 24025 | 37660 | 1.53 | 5.0E-71 | 11417012 | NT | Homo sapiens similar to transcription factor CA150 (H. sapiens) (LOC63170), mRNA |
| 10943 | 24025 | 37661 | 1.53 | 5.0E-71 | 11417012 | NT | Homo sapiens similar to transcription factor CA150 (H. sapiens) (LOC63170), mRNA |
| 11226 | 24295 | 37936 | 3.85 | 5.0E-71 | 11436514 | NT | Homo sapiens pro-platelet basic protein (includes platelet basic protein, beta-thromboglobulin, connective tissue-activating peptide III, neutrophil-activating peptide-2) (PPBP), mRNA |
| 11487 | 24528 | 38169 | 2.1 | 5.0E-71 | 11438069 | NT | Homo sapiens similar to hypothetical protein FLJ20163 (H. sapiens) (LOC63325), mRNA |
| 12558 | 25380 | 38169 | 1.76 | 5.0E-71 | 11418039 | NT | Homo sapiens RNA binding motif protein 9 (RBM9), mRNA |
| 105 | 13342 | 26370 | 1.84 | 4.0E-71 | 4507892 | NT | Homo sapiens tumor necrosis factor (ligand) superfamily, member 10 (TNFSF10) mRNA |
| 360 | 13571 | 26601 | 31.91 | 4.0E-71 | AF157828.1 | NT | Equus caballus glyceraldehyde-3-phosphate dehydrogenase mRNA, partial cds |
| 360 | 13571 | 26602 | 31.91 | 4.0E-71 | AF157828.1 | NT | Equus caballus glyceraldehyde-3-phosphate dehydrogenase mRNA, partial cds |
| 2951 | 16128 | 29141 | 1.67 | 4.0E-71 | 4505980 | NT | Homo sapiens plasminogen (PLG) mRNA |
| 4548 | 17696 | 30667 | 1.97 | 4.0E-71 | AF066322.1 | NT | Homo sapiens SP100-HMG nuclear autoantigen (SP100) mRNA, complete cds |
| 5101 | 18229 | 31200 | 4.56 | 4.0E-71 | 7687802 | NT | Homo sapiens putative heme-binding protein (SOUL), mRNA |
| 8223 | 21305 | | 1.13 | 3.0E-71 | AU135734.1 | EST_HUMAN | AU135734 PLACE1 Homo sapiens cDNA clone IMAGE1002775 5' |
| 10931 | 24013 | 37646 | 3.32 | 3.0E-71 | AA557693.1 | EST_HUMAN | nt45h10.s1 NCL CGAP_P44 Homo sapiens cDNA clone IMAGE:1049683 similar to contains P7R6.13 PTR5 repetitive element; |
| 1268 | 14416 | 27481 | 4.54 | 2.0E-71 | AL163206.2 | NT | Homo sapiens chromosome 21 segment HS21C006 |
| 5435 | 18635 | 31614 | 7.23 | 2.0E-71 | D87482.1 | NT | Human mRNA for KIAA0272 gene, partial cds |
| 6435 | 18635 | 31615 | 7.23 | 2.0E-71 | D87482.1 | NT | Human mRNA for KIAA0272 gene, partial cds |
| 7107 | 18634 | 31489 | 0.71 | 2.0E-71 | AL042439.1 | EST_HUMAN | DKFZp434D1721_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434D1721 5' |
| 9207 | 22285 | 35828 | 0.5 | 2.0E-71 | BF105586.1 | EST_HUMAN | 7n85c11.x1 NCL CGAP_OY18 Homo sapiens cDNA clone IMAGE:3871221 3' similar to TR:Q9Z165 |
| 10813 | 23846 | 37467 | 2.12 | 2.0E-71 | AF095703.1 | NT | Q9Z165 PUTATIVE FOUR REPEAT ION CHANNEL ; Homo sapiens short chain L-3-hydroxyacyl-CoA dehydrogenase precursor (HADHSC) gene, nuclear gene encoding mitochondrial protein, complete cds |
| 10813 | 23846 | 37468 | 2.12 | 2.0E-71 | AF095703.1 | NT | Homo sapiens short chain L-3-hydroxyacyl-CoA dehydrogenase precursor (HADHSC) gene, nuclear gene encoding mitochondrial protein, complete cds |
| 10933 | 24015 | 37847 | 4.37 | 2.0E-71 | BE018477.1 | EST_HUMAN | b881a06.y1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3048754 5' similar to SW:R23B_HUMAN P54727 UV EXCISION REPAIR PROTEIN RAD23 HOMOLOG B ; |
| 11880 | 24848 | 38545 | 1.46 | 2.0E-71 | BF149173.1 | EST_HUMAN | Tm022 Human Epidermal Keratinocyte Subtraction Library- Upregulated Transcripts Homo sapiens cDNA similar to gi 6598881 |
| 11880 | 24848 | 38546 | 1.46 | 2.0E-71 | BF149173.1 | EST_HUMAN | Tm022 Human Epidermal Keratinocyte Subtraction Library- Upregulated Transcripts Homo sapiens cDNA similar to gi 6598881 |
| 11882 | 24870 | 38567 | 2.05 | 2.0E-71 | R56826.1 | EST_HUMAN | y77611.1 Soares breast 2NB1Bst Homo sapiens cDNA clone IMAGE:154772 5' |
| 12318 | 25231 | | 4.88 | 2.0E-71 | T95489.1 | EST_HUMAN | ye43a09.1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:120520 5' |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 655 | 13841 | 26868 | 1.55 | 1.0E-71 | AI077927.1 | EST_HUMAN | oy15e03.s1 Scores_senescent_fibroblasts_NbHSF Homo sapiens cDNA clone IMAGE:1665018 3' similar to contains LOR1 b2 LOR1 repetitive element; |
| 864 | 14137 | 27198 | 1.38 | 1.0E-71 | 7706281 | NT | Homo sapiens neuronal cell death-related protein (LOC51616), mRNA |
| 994 | 14289 | 27344 | 13.07 | 1.0E-71 | AF205890.1 | NT | Homo sapiens disabled-2 gene, exons 2 through 15 and complete cds |
| 1124 | 14289 | 27600 | 11.13 | 1.0E-71 | AF012872.1 | NT | Homo sapiens phosphatidylinositol 4-kinase 230 (p4K230) mRNA, complete cds |
| 1371 | 14526 | 28408 | 1.52 | 1.0E-71 | AB017007.1 | NT | Homo sapiens PMS2L16 mRNA, partial cds |
| 2147 | 15283 | 28408 | 1.52 | 1.0E-71 | AB017007.1 | NT | Homo sapiens PMS2L16 mRNA, partial cds |
| 2147 | 15283 | 28409 | 1.52 | 1.0E-71 | 7657153 | NT | Homo sapiens hairy/enhancer-of-split related with YRPW motif-like (HEYL), mRNA |
| 2147 | 15283 | 28982 | 6.06 | 1.0E-71 | AF119685.1 | NT | Homo sapiens inorganic pyrophosphatase mRNA, complete cds |
| 2757 | 16874 | 28769 | 1.56 | 1.0E-71 | AF119685.1 | NT | Homo sapiens SNARE protein kinase SNAK mRNA, complete cds |
| 3590 | 18764 | 28769 | 6.57 | 1.0E-71 | AF246219.1 | NT | Homo sapiens SNARE protein kinase SNAK mRNA, complete cds |
| 3685 | 18848 | 28855 | 6.57 | 1.0E-71 | AF246219.1 | NT | Homo sapiens SNARE protein kinase SNAK mRNA, complete cds |
| 3685 | 18848 | 28856 | 6.57 | 1.0E-71 | AF246219.1 | NT | Homo sapiens SNARE protein kinase SNAK mRNA, complete cds |
| 3738 | 16899 | 29602 | 0.9 | 1.0E-71 | BE122850.1 | EST_HUMAN | 02_15 Human Epidermal Keratinocyte Subtraction Library- Upregulated Transcripts Homo sapiens cDNA clone 02_15 5' similar to Homo sapiens chromosome 19 |
| 3738 | 16899 | 29602 | 0.9 | 1.0E-71 | BE122850.1 | EST_HUMAN | 02_15 Human Epidermal Keratinocyte Subtraction Library- Upregulated Transcripts Homo sapiens cDNA clone 02_15 5' similar to Homo sapiens chromosome 19 |
| 3835 | 16995 | 29997 | 2.2 | 1.0E-71 | AF218904.1 | NT | Homo sapiens atractin precursor (ATRIN) gene, exon 19 |
| 4593 | 17730 | 30712 | 2.13 | 1.0E-71 | D28476.1 | NT | Homo sapiens atractin precursor (ATRIN) gene, exon 19 |
| 6881 | 20033 | 33443 | 1.48 | 1.0E-71 | 11426182 | NT | Human mRNA for KIAA0045 gene, complete cds |
| 7235 | 20319 | 33762 | 1.49 | 1.0E-71 | AB011131.1 | NT | Homo sapiens GCN5 (general control of amino-acid synthesis, yeast, homolog-like 2 (GCN5L2), mRNA |
| 7484 | 20539 | 34013 | 12.52 | 1.0E-71 | U80753.1 | NT | Homo sapiens mRNA for KIAA0659 protein, partial cds |
| 8340 | 21421 | 34946 | 0.82 | 1.0E-71 | AF105287.1 | NT | Homo sapiens CAGL79 mRNA, partial cds |
| 8362 | 21443 | 34955 | 2.21 | 1.0E-71 | 11425430 | NT | Homo sapiens glypican-6 (GPO6) mRNA, complete cds |
| 8641 | 21721 | 35257 | 4.23 | 1.0E-71 | 8922811 | NT | Homo sapiens myomesin (M-protein) 2 (165kD) (MYOM2), mRNA |
| 8641 | 21721 | 35258 | 4.23 | 1.0E-71 | 8922811 | NT | Homo sapiens myomesin (M-protein) 2 (165kD) (MYOM2), mRNA |
| 8641 | 21721 | 35258 | 4.23 | 1.0E-71 | 8922811 | NT | Homo sapiens myomesin (M-protein) 2 (165kD) (MYOM2), mRNA |
| 9429 | 22503 | 36069 | 0.88 | 1.0E-71 | AY007043.1 | NT | Homo sapiens hypothetical protein FLJ10998 (FLJ10998), mRNA |
| 10211 | 23247 | 36837 | 6.22 | 1.0E-71 | AV761217.1 | EST_HUMAN | Homo sapiens hypothetical protein FLJ10998 (FLJ10998), mRNA |
| 10273 | 23308 | 37411 | 2.74 | 1.0E-71 | 11433142 | NT | Homo sapiens hypothetical protein FLJ10998 (FLJ10998), mRNA |
| 10759 | 23792 | 37624 | 0.97 | 1.0E-71 | AV761217.1 | EST_HUMAN | CSNK2A1=casein kinase II (CKII) subunit alpha [human, Genomic, 18882 nt] |
| 11024 | 24103 | 37624 | 2.49 | 1.0E-71 | AV761217.1 | EST_HUMAN | Homo sapiens cytochrome c oxidase subunit VII-related protein gene, complete cds |
| 11121 | 24193 | 38138 | 3.31 | 1.0E-71 | 11418003 | NT | Homo sapiens MDS Homo sapiens cDNA clone MDSEIA03 5' |
| 11413 | 24474 | 38138 | 3.2 | 1.0E-71 | 11417191 | NT | Homo sapiens activated leucocyte cell adhesion molecule (ALCAM), mRNA |
| 11413 | 24474 | 38139 | 3.2 | 1.0E-71 | 11417191 | NT | AV761217 MDS Homo sapiens cDNA clone MDSEIA03 5' |
| 12708 | 25471 | | 10.17 | 1.0E-71 | AB011399.1 | NT | Homo sapiens coagulation factor XIII, A1 polypeptide (F13A1), mRNA |

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 420 | 13615 | 26654 | 0.77 | 9.0E-72 | AI857635.1 | EST_HUMAN | Wk95g03.x1 NC1_CGAP_Lu18 Homo sapiens cDNA clone IMAGE:2423188 3' similar to TR:O86705 O86705 HYPOTHETICAL 38.6 KD PROTEIN. ;contains Alu repetitive element |
| 420 | 13616 | 26655 | 0.77 | 9.0E-72 | AI857635.1 | EST_HUMAN | Wk95g03.x1 NC1_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2423188 3' similar to TR:O86705 O86705 HYPOTHETICAL 38.6 KD PROTEIN. ;contains Alu repetitive element |
| 6237 | 19412 | 32780 | 0.86 | 8.0E-72 | BF03752.1 | EST_HUMAN | 901469747F1 NIH_MGC 66 Homo sapiens cDNA clone IMAGE:3882481 5' |
| 4228 | 17375 | 30381 | 1.75 | 7.0E-72 | 4501866 | NT | Homo sapiens acetylase 2, mitochondrial (ACO2), nuclear gene encoding mitochondrial protein, mRNA |
| 4228 | 17375 | 30382 | 1.75 | 7.0E-72 | 4501866 | NT | Homo sapiens acetylase 2, mitochondrial (ACO2), nuclear gene encoding mitochondrial protein, mRNA |
| 4228 | 17375 | 30363 | 1.75 | 7.0E-72 | 4501866 | NT | Homo sapiens acetylase 2, mitochondrial (ACO2), nuclear gene encoding mitochondrial protein, mRNA |
| 7274 | 20357 | 33811 | 3 | 7.0E-72 | SA1694.1 | NT | (pseudogene) PTMAP2=prothymosin alpha [human, Genomic, 1192 nt, segment 2 of 3] |
| 12857 | 25569 | | 1.53 | 7.0E-72 | F26269.1 | EST_HUMAN | HSPD13670 HM3 Homo sapiens cDNA clone e400051 G02 |
| 8578 | 21659 | | 5.7 | 6.0E-72 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21 CQ46 |
| 64 | 13302 | 26324 | 1.19 | 5.0E-72 | BF333707.1 | EST_HUMAN | QV0-CS0010-150900-398-e11 CS0010 Homo sapiens cDNA |
| 64 | 13302 | 26325 | 1.19 | 5.0E-72 | BF333707.1 | EST_HUMAN | QV0-CS0010-150900-398-e11 CS0010 Homo sapiens cDNA |
| 65 | 13302 | 26324 | 3.1 | 5.0E-72 | BF333707.1 | EST_HUMAN | QV0-CS0010-150900-398-e11 CS0010 Homo sapiens cDNA |
| 65 | 13302 | 26325 | 3.1 | 5.0E-72 | BF333707.1 | EST_HUMAN | QV0-CS0010-150900-398-e11 CS0010 Homo sapiens cDNA |
| 1162 | 14326 | | 2.31 | 6.0E-72 | L11845.1 | NT | Homo sapiens alpha-tubulin mRNA, complete cds |
| 7089 | 20183 | 33607 | 1.62 | 5.0E-72 | AU128584.1 | EST_HUMAN | AU128584 NT2RP2 Homo sapiens cDNA clone NT2RP2003751 5' |
| 8976 | 22055 | 36598 | 4.16 | 6.0E-72 | AW161274.1 | EST_HUMAN | au80c03.y1 Schneider fetal brain Q0004 Homo sapiens cDNA clone IMAGE:2782564 5' similar to TR:Q99785 Q99785 HYPOTHETICAL 32.4 KD PROTEIN ;contains element MSR1 repetitive element ; |
| 10768 | 29203 | 36797 | 0.71 | 6.0E-72 | AV724632.1 | EST_HUMAN | AV724632 HTB Homo sapiens cDNA clone HTBAKB01 5' |
| 11519 | 24575 | 38252 | 2.95 | 5.0E-72 | BF331571.1 | EST_HUMAN | MR4-BT0598-010600-005-d05 BT0598 Homo sapiens cDNA |
| 11519 | 24575 | 38253 | 2.95 | 5.0E-72 | BF331571.1 | EST_HUMAN | MR4-BT0598-010600-005-d05 BT0598 Homo sapiens cDNA |
| 11945 | 24931 | 36633 | 1.95 | 5.0E-72 | BE208545.1 | EST_HUMAN | ba08g08.y1 NIH_MGC 7 Homo sapiens cDNA clone IMAGE:2823806 5' |
| 11945 | 24931 | 36634 | 1.55 | 6.0E-72 | BE208545.1 | EST_HUMAN | ba08g08.y1 NIH_MGC 7 Homo sapiens cDNA clone IMAGE:2823806 5' |
| 12380 | 26136 | | 2.46 | 5.0E-72 | BE26645.1 | EST_HUMAN | QV1-BT0632-280800-342-e10 BT0632 Homo sapiens cDNA |
| 4943 | 18073 | | 0.91 | 4.0E-72 | 11034844 | NT | Homo sapiens hypothetical protein dJ1057520.2 (DJ1057520.2), mRNA |
| 5581 | 18776 | 31821 | 0.68 | 4.0E-72 | AF170025.1 | NT | Homo sapiens zinc finger protein ZFP-65 (ZFP65) mRNA, alternatively spliced, complete cds |
| 6687 | 19845 | 33236 | 0.85 | 4.0E-72 | T97947.1 | EST_HUMAN | yc93a01.11 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:118762 5' similar to SP-A44282 A44282 RETROVIRUS-RELATED POL POLYPROTEIN - HUMAN ; |
| 7587 | 20639 | 34115 | 3.28 | 4.0E-72 | 5729887 | NT | Homo sapiens hct domain and RLD 2 (HERC2), mRNA |

Page 368 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 9987 | 23028 | 36618 | 0.87 | 4.0E-72 | 8923688 | NT | Homo sapiens hypothetical protein FLJ20758 (FLJ20758), mRNA |
| 10312 | 23347 | 36953 | 0.57 | 4.0E-72 | 11434344 | NT | Homo sapiens SEC10 (S. cerevisiae)-like 1 (SEC10L1), mRNA |
| 10604 | 23638 | 37245 | 0.54 | 4.0E-72 | AW836230.1 | EST_HUMAN | RC3-L10023-200100-012-d11 L10023 Homo sapiens cDNA |
| 10604 | 23638 | 37246 | 0.54 | 4.0E-72 | AW836230.1 | EST_HUMAN | RC3-L10023-200100-012-d11 L10023 Homo sapiens cDNA |
| | | | | | | | q167c02.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1849730 3' similar to TR:Q14498 Q14498 Q14498 SPLICING FACTOR, [1], contains Alu repetitive element; contains element L1 repetitive element; |
| 10634 | 23688 | 37278 | 1.04 | 4.0E-72 | A1248796.1 | EST_HUMAN | aa23109.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:814121 3' similar to SW:OPTR_FLAPR |
| 11563 | 24618 | 38298 | 1.57 | 4.0E-72 | AA465388.1 | EST_HUMAN | P49131 CHLOROPLAST TRIOSE PHOSPHATE TRANSLOCATOR PRECURSOR, ; |
| 11563 | 24618 | 38299 | 1.57 | 4.0E-72 | AA465388.1 | EST_HUMAN | aa23109.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:814121 3' similar to SW:OPTR_FLAPR |
| 11818 | 24807 | 38503 | 6.28 | 4.0E-72 | H79421.1 | EST_HUMAN | P49131 CHLOROPLAST TRIOSE PHOSPHATE TRANSLOCATOR PRECURSOR, ; |
| 11938 | 24824 | 38624 | 2.19 | 4.0E-72 | 7657057 | NT | yt28a03.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:235084 5' |
| 11938 | 24824 | 38625 | 2.19 | 4.0E-72 | 7657057 | NT | Homo sapiens eukaryotic translation initiation factor 2B, subunit 2 (beta, 39kD) (EIF2B2), mRNA |
| 11976 | 24961 | 38663 | 1.67 | 4.0E-72 | T81910.1 | EST_HUMAN | Homo sapiens eukaryotic translation initiation factor 2B, subunit 2 (beta, 39kD) (EIF2B2), mRNA |
| 12778 | 25521 | 32003 | 11.86 | 4.0E-72 | AJ277548.2 | NT | yt28a03.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:109649 3' |
| 21 | 13269 | 26259 | 0.7 | 3.0E-72 | 6031976 | NT | Homo sapiens WEE1 gene for protein kinase and partial ZNF143 gene for zinc finger transcription factor |
| 826 | 14101 | | 1.48 | 3.0E-72 | AA723823.1 | EST_HUMAN | Homo sapiens pre-B-cell colony-enhancing factor (PBEF) mRNA |
| 1180 | 14343 | 27398 | 6.32 | 3.0E-72 | U16306.1 | NT | ah63a06.s1 Soares_testis_NHT Homo sapiens cDNA clone 1310260 3' |
| 1180 | 14343 | 27399 | 6.32 | 3.0E-72 | U16306.1 | NT | Human chondroin sulfate proteoglycan version V0 splice-variant precursor peptide mRNA, complete cds |
| 1220 | 14381 | 27440 | 3.98 | 3.0E-72 | U80228.1 | NT | Human gamma-aminobutyric acid transaminase mRNA, partial cds |
| 1220 | 14381 | 27441 | 3.98 | 3.0E-72 | U80228.1 | NT | Human gamma-aminobutyric acid transaminase mRNA, partial cds |
| 1848 | 14700 | 27779 | 1.16 | 3.0E-72 | BE242161.1 | EST_HUMAN | TCAAAP1E1252 Pediatric acute myelogenous leukemia cell (FAB M1) Bayor-HQSC project-TCAA Homo sapiens cDNA clone TCAAAP1252 |
| 3143 | 16319 | 29331 | 12.72 | 3.0E-72 | AJ228043.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22, segment 3/3 |
| 3362 | 16524 | 29539 | 2.7 | 3.0E-72 | 8923548 | NT | Homo sapiens hypothetical protein FLJ20585 (FLJ20585), mRNA |
| 3927 | 17086 | 30082 | 2.61 | 3.0E-72 | S77589.1 | NT | TCR V delta 2-C alpha T-cell receptor delta and C alpha fusion gene (alternatively spliced, splice junction) |
| 4667 | 17802 | 30789 | 3.17 | 3.0E-72 | 11416196 | NT | [human, precursor B-cell line REH, mRNA Partial, 211 nt] |
| 4859 | 18019 | 31003 | 1.25 | 3.0E-72 | AF167572.1 | NT | Homo sapiens hypothetical protein (FLJ11127), mRNA |
| 4859 | 18019 | 31004 | 1.25 | 3.0E-72 | AF167572.1 | NT | Homo sapiens protein methyltransferase (JBP1) mRNA, complete cds |
| | | | | | | | Homo sapiens protein methyltransferase (JBP1) mRNA, complete cds |

Page 369 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 5837 | 18831 | | 1.12 | 3.0E-72 | 4759093 | NT | Homo sapiens semaphorin W (SEMAW) mRNA |
| 6101 | 19281 | 32613 | 1.94 | 3.0E-72 | AF073367.1 | NT | Homo sapiens growth factor receptor-bound protein 10 (GRB10) gene, exon 5 |
| 6101 | 19281 | 32614 | 1.94 | 3.0E-72 | AF073367.1 | NT | Homo sapiens growth factor receptor-bound protein 10 (GRB10) gene, exon 5 |
| 6295 | 19468 | 32822 | 4.53 | 3.0E-72 | AB029004.1 | NT | Homo sapiens mRNA for KIAA1081 protein, partial cds |
| 6295 | 19468 | 32823 | 4.53 | 3.0E-72 | AB029004.1 | NT | Homo sapiens mRNA for KIAA1081 protein, partial cds |
| 6747 | 19903 | 33288 | 4.1 | 3.0E-72 | 4826987 | NT | Homo sapiens ribosomal protein L3-like (RPL3L) mRNA |
| 7768 | 20817 | 34307 | 2.01 | 3.0E-72 | U80017.1 | NT | Homo sapiens basic transcription factor 2 p44 (btf2p44) gene, partial cds, neuronal apoptosis inhibitory protein (nailp) and survival motor neuron protein (smn) genes, complete cds |
| 8369 | 21450 | 34973 | 6.42 | 3.0E-72 | 5031892 | NT | Homo sapiens nuclear receptor subfamily 1, group H, member 3 (NHR1H3), mRNA |
| 10846 | 23690 | 37290 | 1.09 | 3.0E-72 | X98289.1 | NT | Homo sapiens S100A12 gene for Calgranulin C, exon 2 and joined cds |
| 12878 | 25463 | 32018 | 2.18 | 3.0E-72 | AB011368.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 6079 | 19261 | 32590 | 1.38 | 2.0E-72 | 11426871 | NT | Homo sapiens solute carrier family 13 (sodium-dependent dicarboxylate transporter), member 2 (SLC13A2), mRNA |
| 9297 | 22373 | 35923 | 0.84 | 2.0E-72 | BF308560.1 | EST_HUMAN | 601890419F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4131481 5' |
| 8287 | 22373 | 35924 | 0.84 | 2.0E-72 | BF308560.1 | EST_HUMAN | 601890419F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4131481 5' |
| 10978 | 24057 | 37691 | 5.46 | 2.0E-72 | AA789277.1 | EST_HUMAN | aj28609.s1 Soares_besit_NHT Homo sapiens cDNA clone 1391809 3' similar to gb:X02067 H. sapiens mRNA for 7SL RNA pseudogene (HUMAN); |
| 12772 | 25515 | 31899 | 3.39 | 2.0E-72 | AF18274.1 | NT | Rattus norvegicus putative phosphate/phosphoenolpyruvate translocator mRNA, complete cds |
| 2137 | 15273 | 28394 | 8.14 | 1.0E-72 | AA848226.1 | EST_HUMAN | el83502.st Soares_parathyroid_tumor_NHHPA Homo sapiens cDNA clone IMAGE:1387385 3' |
| 5837 | 19075 | 32384 | 3.54 | 1.0E-72 | 7657676 | NT | Homo sapiens vacuolar protein sorting 41 (yeast homolog) (VPS41), mRNA |
| 6639 | 19847 | 33237 | 1.22 | 1.0E-72 | 11321578 | NT | Homo sapiens myosin, heavy polypeptide 13, skeletal muscle (MYH13), mRNA |
| 6639 | 19847 | 33238 | 1.22 | 1.0E-72 | 11321578 | NT | Homo sapiens myosin, heavy polypeptide 13, skeletal muscle (MYH13), mRNA |
| 6789 | 26832 | 33319 | 1.29 | 1.0E-72 | AV761818.1 | EST_HUMAN | AV761818 NPd Homo sapiens cDNA clone NPDAIE11 5' |
| 7815 | 20870 | 34368 | 3.5 | 1.0E-72 | BE175434.1 | EST_HUMAN | RC4-HT0578-170300-012-g02 HT0578 Homo sapiens cDNA |
| 7815 | 20870 | 34367 | 3.5 | 1.0E-72 | BE175434.1 | EST_HUMAN | RC4-HT0578-170300-012-g02 HT0578 Homo sapiens cDNA |
| 9790 | 22830 | 36409 | 7.37 | 1.0E-72 | AF222742.1 | NT | Homo sapiens synaptic glycoprotein SC2 (SC2) mRNA, complete cds |
| 9790 | 22830 | 36409 | 7.37 | 1.0E-72 | AF222742.1 | NT | Homo sapiens synaptic glycoprotein SC2 (SC2) mRNA, complete cds |
| 1498 | 14641 | 27723 | 1.17 | 9.0E-73 | AW374968.1 | EST_HUMAN | MR0-CT0083-071099-002-h11 CT0083 Homo sapiens cDNA |
| 6164 | 19340 | 32897 | 0.92 | 9.0E-73 | 11525883 | NT | Homo sapiens membrane protein, palmitoylated 3 (MAGUK p55 subfamily member 3) (MPP3), mRNA |
| 11193 | 24262 | | 24.49 | 9.0E-73 | 11424089 | NT | Homo sapiens ribosomal protein L13a (RPL13A), mRNA |
| 1063 | 14228 | 27285 | 0.73 | 8.0E-73 | AW071755.1 | EST_HUMAN | w655c08.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2501098 3' similar to TR:Q59050 |
| 5898 | 18992 | 32184 | 0.98 | 8.0E-73 | 4806798 | NT | Q59050 HYPOTHETICAL PROTEIN MJ1696 ; Homo sapiens phosphatidylinositol 3-kinase, class 2, alpha polypeptide (PIK3C2A) mRNA |

Page 370 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 6702 | 19860 | 33250 | 0.29 | 8.0E-73 | 11428469 | NT | Homo sapiens lyszyme homolog (LOC57151), mRNA |
| 8287 | 21369 | 34890 | 2.1 | 8.0E-73 | AF113129.1 | NT | Homo sapiens vacuolar ATPase isoform VA68, mRNA, complete cds |
| 9353 | 22618 | 36188 | 4.35 | 8.0E-73 | BE019900.1 | EST_HUMAN | h62a03.y1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3030034 5' similar to gb:X04098_cds1 ACTIN, CYTOPLASMIC 2 (HUMAN); gb:M21495 Mouse cytoskeletal gamma-actin mRNA, complete cds (MOUSE); |
| 9941 | 22980 | 36570 | 1.76 | 8.0E-73 | 11526037 | NT | Homo sapiens interleukin 12 receptor, beta 1 (IL12RB1), mRNA |
| 9941 | 22980 | 36571 | 1.76 | 8.0E-73 | 11526037 | NT | Homo sapiens interleukin 12 receptor, beta 1 (IL12RB1), mRNA |
| 10134 | 23172 | 36770 | 0.51 | 8.0E-73 | X91940.1 | NT | H. sapiens mRNA for WNT-8B protein |
| 10834 | 23867 | 37490 | 0.47 | 8.0E-73 | 4607628 | NT | Homo sapiens transition protein 1 (during histone to protamine replacement) (TNF-1) mRNA |
| 12001 | 24988 | 38690 | 1.49 | 8.0E-73 | AF084520.1 | NT | Homo sapiens brefeldin A-inhibited guanine nucleotide-exchange protein 1 mRNA, complete cds |
| 12588 | 25403 | 32044 | 1.2 | 8.0E-73 | AB002098.1 | NT | Homo sapiens DNA for Human P2XM, complete cds |
| 12842 | 25560 | 31986 | 4.55 | 8.0E-73 | 11418189 | NT | Homo sapiens thyroid autoantigen 70kD (Ku antigen) (G22P1), mRNA |
| 1157 | 14321 | 27378 | 1.61 | 7.0E-73 | 8923280 | NT | Homo sapiens chromosome 21 segment HS21C008 |
| 3373 | 16545 | 26559 | 0.7 | 7.0E-73 | AL163206.2 | NT | Homo sapiens chromosome 21 segment HS21C008 |
| 5059 | 18187 | | 1.29 | 7.0E-73 | AL163282.2 | NT | Homo sapiens chromosome 21 segment HS21C008 |
| 162 | 13387 | 33867 | 3.04 | 6.0E-73 | AL163216.2 | NT | Homo sapiens chromosome 21 segment HS21C018 |
| 7323 | 20405 | 33867 | 3.42 | 6.0E-73 | BE166574.1 | EST_HUMAN | QV0-HT0494-020300-137-403 HT0494 Homo sapiens cDNA |
| 5368 | 18571 | 31439 | 2.05 | 4.0E-73 | 11422159 | NT | Homo sapiens HELQ protein (FAM441), mRNA |
| 1911 | 15054 | 28165 | 1.34 | 3.0E-73 | 11435913 | NT | Homo sapiens heme-binding protein (HEBP), mRNA |
| 1911 | 15054 | 28165 | 1.34 | 3.0E-73 | 11435913 | NT | Homo sapiens heme-binding protein (HEBP), mRNA |
| 6837 | 19990 | 33398 | 0.73 | 3.0E-73 | AA136403.1 | EST_HUMAN | zn9504.x1 Stragano fold, retina 937202 Homo sapiens cDNA clone IMAGE:565950 3' similar to |
| 8958 | 22037 | 35578 | 0.73 | 3.0E-73 | AV729428.1 | EST_HUMAN | gb:Z3064_cds1 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN G (HUMAN); |
| 8958 | 22037 | 35578 | 0.73 | 3.0E-73 | AV729428.1 | EST_HUMAN | AV729428 HTC Homo sapiens cDNA clone HTCAAF071 5' |
| 10927 | 24010 | | 1.45 | 3.0E-73 | X99660.1 | NT | H. sapiens SH3GLP2 pseudogene, 5' end |
| 11261 | 24330 | 37970 | 1.41 | 3.0E-73 | BE711238.1 | EST_HUMAN | RC8-HT0678-280600-013-H10 HT0678 Homo sapiens cDNA |
| 11261 | 24330 | 37971 | 1.41 | 3.0E-73 | BE711238.1 | EST_HUMAN | RC8-HT0678-280600-013-H10 HT0678 Homo sapiens cDNA |
| 11910 | 24897 | | 1.82 | 3.0E-73 | AI004040.1 | EST_HUMAN | cu11402.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1626555 3' |
| 13118 | 25730 | | 3.04 | 3.0E-73 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 13122 | 25732 | | 2.05 | 3.0E-73 | AW698081.1 | EST_HUMAN | RC3-NN0066-270400-011-c04 NN0066 Homo sapiens cDNA |
| 874 | 14050 | 27115 | 1.57 | 2.0E-73 | AF139897.1 | NT | Homo sapiens BAS31 (BAS31) mRNA, partial cds |
| 2000 | 15141 | | 9.67 | 2.0E-73 | AW698081.1 | EST_HUMAN | RC3-NN0066-270400-011-c04 NN0066 Homo sapiens cDNA |
| 2371 | 15502 | | 1.49 | 2.0E-73 | U01317.1 | NT | Human beta globin region on chromosome 11 |
| 3249 | 16423 | 29440 | 2.03 | 2.0E-73 | 4502582 | NT | Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA |

Page 371 of 550
Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 3640 | 16804 | 28816 | 0.68 | 2.0E-73 | 7669539 | NT | Homo sapiens Parkinson disease (autosomal recessive, juvenile) 2, parkin (PARK2), transcript variant 3, mRNA |
| 3640 | 16804 | 28817 | 0.68 | 2.0E-73 | 7669539 | NT | Homo sapiens Parkinson disease (autosomal recessive, juvenile) 2, parkin (PARK2), transcript variant 3, mRNA |
| 4555 | 17693 | | 1.31 | 2.0E-73 | AL163283.2 | NT | Homo sapiens chromosome 21 segment HS21C083 |
| 6567 | 16729 | 33106 | 0.59 | 2.0E-73 | AF086824.1 | NT | Mus musculus rho/rao-interacting citron kinase (Crik) mRNA, complete cds |
| 6567 | 16729 | 33107 | 0.59 | 2.0E-73 | AF086824.1 | NT | Mus musculus rho/rao-interacting citron kinase (Crik) mRNA, complete cds |
| 6610 | 16770 | 33160 | 5.46 | 2.0E-73 | AB046811.1 | NT | Homo sapiens mRNA for KIAA1591 protein, partial cds |
| 6839 | 16992 | 33400 | 1.87 | 2.0E-73 | 11431471 | NT | Homo sapiens interleukin 4 receptor (IL4R), mRNA |
| 6839 | 16992 | 33401 | 1.87 | 2.0E-73 | 11431471 | NT | Homo sapiens interleukin 4 receptor (IL4R), mRNA |
| 7084 | 21033 | 34546 | 1.01 | 2.0E-73 | M94048.1 | NT | Human peripheral myelin protein 22 mRNA, complete cds |
| 8732 | 22797 | 36370 | 0.54 | 2.0E-73 | AF198349.1 | NT | Gallus gallus Dach2 protein (Dach2) mRNA, complete cds |
| 8732 | 22797 | 36371 | 0.54 | 2.0E-73 | AF198349.1 | NT | Gallus gallus Dach2 protein (Dach2) mRNA, complete cds |
| 10637 | 23671 | 37281 | 1.31 | 2.0E-73 | 4604168 | NT | Homo sapiens glutathione synthetase (GSS) mRNA |
| 10715 | 23748 | 37355 | 1.38 | 2.0E-73 | 11496980 | NT | Homo sapiens supervillin (SVIL), transcript variant 1, mRNA |
| 10715 | 23748 | 37356 | 1.38 | 2.0E-73 | 11496980 | NT | Homo sapiens supervillin (SVIL), transcript variant 1, mRNA |
| 11309 | 24374 | 38017 | 2.91 | 2.0E-73 | 4557612 | NT | Homo sapiens galactosylceramidase (Krabbe disease) (GALC), mRNA |
| 11309 | 24374 | 38018 | 2.91 | 2.0E-73 | 4557612 | NT | Homo sapiens galactosylceramidase (Krabbe disease) (GALC), mRNA |
| 11339 | 24402 | 38051 | 1.44 | 2.0E-73 | AB026982.1 | NT | Homo sapiens mRNA for KIAA1059 protein, partial cds |
| 12509 | 15141 | | 4.32 | 2.0E-73 | AW898081.1 | EST_HUMAN | RC3-NN0068-270400-011-c04 NN0068 Homo sapiens cDNA |
| 1824 | 14973 | 28068 | 3.52 | 1.0E-73 | AL121585.1 | EST_HUMAN | AU121585 MAMMA1 Homo sapiens cDNA clone MAMMA1000490 5' |
| 6490 | 16658 | 33019 | 1.19 | 1.0E-73 | BE151283.1 | EST_HUMAN | CM1-HT0282-111199-042-h10 HT0282 Homo sapiens cDNA |
| | | | | | | | qg61507.r1 Scores: testis NHT Homo sapiens cDNA clone IMAGE:1839837 5' similar to cointaino element |
| 9899 | 22748 | 36316 | 1.22 | 1.0E-73 | AI147427.1 | EST_HUMAN | MER22 repetitive element: |
| 11736 | 23922 | 37647 | 3.74 | 1.0E-73 | BE385477.1 | EST_HUMAN | 601276071F1 NIH_MGC 20 Homo sapiens cDNA clone IMAGE:3617105 5' |
| 12045 | 25026 | 38731 | 1.34 | 9.0E-74 | XT7225.1 | NT | H. sapiens mRNA for TFIIA |
| 12045 | 25028 | 38732 | 1.34 | 9.0E-74 | XT7225.1 | NT | H. sapiens mRNA for TFIIA |
| 769 | 13940 | 26985 | 4.83 | 8.0E-74 | 4557426 | NT | Homo sapiens CD39-like 4 (CD39L4) mRNA |
| 6036 | 19219 | 32641 | 1.73 | 8.0E-74 | S83194.1 | NT | Ca2+/calmodulin-dependent protein kinase IV kinase isoform [rat, brain, mRNA, 8429 nt] |
| 6036 | 19219 | 32642 | 1.73 | 8.0E-74 | S83194.1 | NT | Ca2+/calmodulin-dependent protein kinase IV kinase isoform [rat, brain, mRNA, 8429 nt] |
| 2004 | 15144 | 28249 | 4.96 | 7.0E-74 | AJ001689.1 | NT | Homo sapiens NKG2D gene, exon 10 |
| 3407 | 16577 | 29592 | 1.83 | 7.0E-74 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 9444 | 22560 | 36123 | 1.48 | 7.0E-74 | BE987432.1 | EST_HUMAN | 601649284F1 NIH_MGC 73 Homo sapiens cDNA clone IMAGE:3932997 5' |
| 12841 | 25559 | 31985 | 4.73 | 7.0E-74 | BE266305.1 | EST_HUMAN | 601161927F1 NIH_MGC 7 Homo sapiens cDNA clone IMAGE:3633866 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 1146 | 14311 | 27368 | 3.65 | 6.0E-74 | AF108907.1 | NT | Homo sapiens S164 gene, partial cds; PS1 and hypothetical protein genes, complete cds; and S171 gene, partial cds |
| 1656 | 14809 | 27893 | 1.03 | 6.0E-74 | AW263177.1 | EST_HUMAN | 3x78g07.x1 Sorensen_NEL_I_GBC_S1 Homo sapiens cDNA clone IMAGE:2700830 3' |
| 2390 | 15521 | 28849 | 15.52 | 6.0E-74 | BE388290.1 | EST_HUMAN | 601283521F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3605453 5' |
| 2390 | 15521 | 28850 | 15.52 | 6.0E-74 | BE388290.1 | EST_HUMAN | 601283521F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3605453 5' |
| 2927 | 16104 | 29119 | 0.97 | 6.0E-74 | AW014039.1 | EST_HUMAN | UIH-B10-aah-h-03-0-UJ.st NCI_CGAP_Sub1 Homo sapiens cDNA clone IMAGE:2708365 3' |
| 2927 | 16104 | 29120 | 0.97 | 6.0E-74 | AW014039.1 | EST_HUMAN | UIH-B10-aah-h-03-0-UJ.st NCI_CGAP_Sub1 Homo sapiens cDNA clone IMAGE:2708365 3' |
| 3805 | 16966 | 29968 | 1.22 | 6.0E-74 | BE048846.1 | EST_HUMAN | ht54e11.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3132332 3' |
| 3805 | 16965 | 29969 | 1.22 | 6.0E-74 | BE048846.1 | EST_HUMAN | ht54e11.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3132332 3' |
| 6481 | 18880 | 31695 | 3.49 | 6.0E-74 | 11056013 | NT | Homo sapiens actin filament associated protein (AFAP), mRNA |
| 928 | 14103 | 27186 | 1.93 | 5.0E-74 | AW020986.1 | EST_HUMAN | dt17c09.y1 Morton Fetal Coochlea Homo sapiens cDNA clone IMAGE:2483704 5' |
| 2767 | 16882 | | 4.96 | 5.0E-74 | AW362766.1 | EST_HUMAN | PM0-CT0289-271089-001-H07 CT0289 Homo sapiens cDNA |
| 5623 | 18720 | 31736 | 1.92 | 5.0E-74 | 11425417 | NT | Homo sapiens phosphatidylinositol glycan, class L (PIGL), mRNA |
| 5910 | 19059 | 32413 | 12.5 | 5.0E-74 | X69970.1 | NT | H. sapiens mRNA for TPCP16 protein |
| 5961 | 19147 | 32462 | 8.1 | 6.0E-74 | 4507866 | NT | Homo sapiens VAMP (vesicle-associated membrane protein)-associated protein A (33kd) (VAPA) mRNA, and translated products |
| 6030 | 19213 | 32533 | 2.94 | 5.0E-74 | 11431471 | NT | Homo sapiens interleukin 4 receptor (IL4R), mRNA |
| 6030 | 19213 | 32534 | 2.94 | 5.0E-74 | 11431471 | NT | Homo sapiens interleukin 4 receptor (IL4R), mRNA |
| 7036 | 20171 | 33693 | 3.69 | 6.0E-74 | 7662263 | NT | Homo sapiens KIAA0716 gene product (KIAA0716), mRNA |
| 8226 | 21308 | 34828 | 2.33 | 5.0E-74 | 11345483 | NT | Homo sapiens hypothetical protein FLJ13222 (FLJ13222), mRNA |
| 10973 | 24053 | 37686 | 1.67 | 5.0E-74 | Y08420.1 | NT | H. sapiens mRNA for HIP-1 |
| 10973 | 24053 | 37687 | 1.67 | 5.0E-74 | Y08420.1 | NT | H. sapiens mRNA for HIP-1 |
| 11090 | 24164 | 37801 | 1.36 | 5.0E-74 | 5729766 | NT | Homo sapiens cell adhesion molecule with homology to L1 CAM (close homologue of L1) (CHL1), mRNA |
| 290 | 13307 | 26542 | 3.31 | 4.0E-74 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 876 | 14051 | 27116 | 10.3 | 4.0E-74 | AB028942.1 | NT | Homo sapiens mRNA for KIAA1019 protein, partial cds |
| 2018 | 15158 | 28262 | 3.07 | 4.0E-74 | AB028998.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 2018 | 15158 | 28263 | 3.07 | 4.0E-74 | AB028998.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 2134 | 15270 | 28390 | 9.96 | 4.0E-74 | 4506192 | NT | Homo sapiens proteasome (prosome, macropain) subunit, beta type, 1 (PSMB1) mRNA |
| 2134 | 15270 | 28391 | 9.96 | 4.0E-74 | 4506192 | NT | Homo sapiens proteasome (prosome, macropain) subunit, beta type, 1 (PSMB1) mRNA |
| 2201 | 15338 | 28463 | 1.32 | 4.0E-74 | AB032994.1 | NT | Homo sapiens mRNA for KIAA1168 protein, partial cds |
| 2498 | 15525 | 28745 | 1.16 | 4.0E-74 | AJ006970.1 | NT | Homo sapiens PIP gene |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 3160 | 16335 | 29345 | 6.22 | 4.0E-74 | AJ008876.1 | NT | Homo sapiens PLP gene |
| 3616 | 19780 | 29795 | 1.1 | 4.0E-74 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 4174 | 17324 | 30315 | 1.29 | 4.0E-74 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 4679 | 17814 | 30802 | 1.86 | 4.0E-74 | 7662183 | NT | Homo sapiens KIAA0569 gene product (KIA0569), mRNA |
| 4735 | 17870 | 30854 | 1.07 | 4.0E-74 | Z17227.1 | NT | Homo sapiens mRNA for transmembrane receptor protein |
| 5133 | 19258 | 31224 | 1.03 | 4.0E-74 | AB040309.1 | NT | Homo sapiens mRNA for KIAA1476 protein, partial cds |
| 5185 | 18307 | 31271 | 1.12 | 4.0E-74 | 4504328 | NT | Homo sapiens hydroxycy-Coenzyme A dehydrogenase/3-ketacy-Coenzyme A thiolase/enoyl-Coenzyme A hydratase (trifunctional protein), beta subunit (HADHB) mRNA |
| 6185 | 18307 | 31272 | 1.12 | 4.0E-74 | 4504326 | NT | Homo sapiens hydroxycy-Coenzyme A dehydrogenase/3-ketacy-Coenzyme A thiolase/enoyl-Coenzyme A hydratase (trifunctional protein), beta subunit (HADHB) mRNA |
| 8747 | 21828 | | 3.53 | 3.0E-74 | AA300378.1 | EST_HUMAN | Hyalatase (trifunctional protein), beta subunit similar to ribosomal protein L37 |
| 8773 | 21852 | 36394 | 0.82 | 3.0E-74 | 8969912 | NT | Homo sapiens actin-related protein 3-beta (ARPP3BETA), mRNA |
| 8572 | 22714 | 36282 | 2.32 | 3.0E-74 | M78984.1 | EST_HUMAN | EST01192 Subtracted Hippocampus, Striatum (cat. #936205) Homo sapiens cDNA clone HICPF91 |
| 10546 | 23581 | 37101 | 2.16 | 3.0E-74 | AA601493.1 | EST_HUMAN | nc017905.s1 NCI_CGAP_Pho1 Homo sapiens cDNA clone IMAGE:1100984 3' |
| 980 | 14153 | 27213 | 28.83 | 2.0E-74 | 7669491 | NT | Homo sapiens glyceraldehyde-3-phosphate dehydrogenase (GAPD), mRNA |
| 980 | 14153 | 27214 | 28.83 | 2.0E-74 | 7669491 | NT | Homo sapiens glyceraldehyde-3-phosphate dehydrogenase (GAPD), mRNA |
| 1202 | 14364 | 27424 | 1.63 | 2.0E-74 | AF020092.1 | NT | Human endogenous retrovirus HERV-K-T47D |
| 1273 | 14430 | 27801 | 1.44 | 2.0E-74 | A1695028.1 | EST_HUMAN | Q08379 COLGIN-95, contains element MER22 repetitive element |
| 1625 | 14777 | 27861 | 10.45 | 2.0E-74 | 4885168 | NT | Homo sapiens epidermal growth factor receptor (avian erythroblastic leukemia viral (v-erb-b) oncogene homolog) (EGFR) mRNA |
| 1625 | 14777 | 27862 | 10.45 | 2.0E-74 | 4885168 | NT | Homo sapiens epidermal growth factor receptor (avian erythroblastic leukemia viral (v-erb-b) oncogene homolog) (EGFR) mRNA |
| 2568 | 15789 | 28905 | 2.18 | 2.0E-74 | A1557280.1 | EST_HUMAN | PT2.1_15_G11.r tumor2 Homo sapiens cDNA 3' |
| 5119 | 19245 | 31210 | 2.52 | 2.0E-74 | AL355092.1 | NT | Novel human gene mapping to chromosome 22 |
| 5119 | 19245 | 31211 | 2.52 | 2.0E-74 | AL355092.1 | NT | Novel human gene mapping to chromosome 22 |
| 6019 | 25813 | 32419 | 1.88 | 2.0E-74 | BE711134.1 | EST_HUMAN | RC8-HT0078-220500-011-C03 HT0078 Homo sapiens cDNA |
| 6017 | 25816 | 32518 | 1.77 | 2.0E-74 | 11439587 | NT | Homo sapiens PDZ-73 protein (PDZ-73/NY-CO-38), mRNA |
| 6017 | 25816 | 32519 | 1.77 | 2.0E-74 | 11439587 | NT | Homo sapiens PDZ-73 protein (PDZ-73/NY-CO-38), mRNA |
| 6087 | 25816 | 32518 | 2.78 | 2.0E-74 | 11439587 | NT | Homo sapiens PDZ-73 protein (PDZ-73/NY-CO-38), mRNA |
| 6087 | 25816 | 32519 | 2.78 | 2.0E-74 | 11439587 | NT | Homo sapiens PDZ-73 protein (PDZ-73/NY-CO-38), mRNA |
| 7252 | 20335 | 33784 | 2.5 | 2.0E-74 | BF030788.1 | EST_HUMAN | Homo sapiens PDZ-73 protein (PDZ-73/NY-CO-38), mRNA |
| 8126 | 21208 | 34728 | 1.8 | 2.0E-74 | AB037818.1 | NT | 601557524F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827549 5' |
| | | | | | | | Homo sapiens mRNA for KIAA1395 protein, partial cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8982 | 22724 | 36284 | 5.27 | 2.0E-74 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 12828 | 29359 | | 2.87 | 2.0E-74 | AA188181.1 | EST_HUMAN | z986a08.e1 Strategene musede 937208 Homo sapiens cDNA clone IMAGE:828018 3' |
| 13169 | 26176 | | 1.16 | 2.0E-74 | BF002855.1 | EST_HUMAN | 7g50a08.x1 NCI_CGAP_P28 Homo sapiens cDNA clone IMAGE:3309878 3' |
| 54 | 13283 | 26308 | 1.5 | 1.0E-74 | 7857334 | NT | Homo sapiens Mississippin/NIK-related kinase (MINK), mRNA |
| 347 | 13558 | 26586 | 3.71 | 1.0E-74 | AW818405.1 | EST_HUMAN | QV4-ST0234-181189-037-405 ST0234 Homo sapiens cDNA |
| 512 | 13708 | 26734 | 1.8 | 1.0E-74 | 8922829 | NT | Homo sapiens hypothetical protein FLJ11028 (FLJ11028), mRNA |
| 519 | 13712 | 26739 | 2.59 | 1.0E-74 | X02344.1 | NT | Homo sapiens beta 2 gene |
| 614 | 13803 | 26823 | 1.28 | 1.0E-74 | 4508020 | NT | Homo sapiens zinc finger protein 259 (ZNF259) mRNA |
| 804 | 13884 | 27038 | 0.88 | 1.0E-74 | AB020840.1 | NT | Homo sapiens mRNA for KIAA0833 protein, partial cds |
| 1024 | 14195 | 27253 | 2.26 | 1.0E-74 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 2301 | 15433 | 28568 | 6.03 | 1.0E-74 | AB002059.1 | NT | Homo sapiens DNA for Human P2XM, complete cds |
| 3209 | 16383 | 28394 | 2.82 | 1.0E-74 | 4758697 | NT | Homo sapiens mannosidase, alpha, class 2A, member 1 (MAN2A1), mRNA |
| 3460 | 16627 | 28646 | 1.29 | 1.0E-74 | AA258548.1 | EST_HUMAN | z60cd01.r1 Scores: NihHMP-u_S1 Homo sapiens cDNA clone IMAGE:687776 5' |
| 3460 | 16627 | 28647 | 1.29 | 1.0E-74 | AA258549.1 | EST_HUMAN | z60cd01.r1 Scores: NihHMP-u_S1 Homo sapiens cDNA clone IMAGE:687776 5' |
| 4031 | 17187 | 30197 | 0.84 | 1.0E-74 | 4504116 | NT | Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA |
| 4031 | 17187 | 30198 | 0.84 | 1.0E-74 | 4504116 | NT | Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA |
| 4075 | 17231 | 30237 | 5.41 | 1.0E-74 | AL163288.2 | NT | Homo sapiens chromosome 21 segment HS21C088 |
| 4175 | 17325 | 30316 | 0.85 | 1.0E-74 | BE083080.1 | EST_HUMAN | RC2-BT0642-270300-019-008 BT0642 Homo sapiens cDNA |
| 4382 | 17525 | 30508 | 0.87 | 1.0E-74 | BE467769.1 | EST_HUMAN | hz73h08.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3213663 3' similar to WP:B0511.12 |
| 6844 | 19937 | 33404 | 1.29 | 1.0E-74 | M89914.1 | NT | CE:17351 ; |
| 7804 | 20860 | 34353 | 1.05 | 1.0E-74 | 11417877 | NT | Human neurofibromin (NF1) gene, complete cds |
| 8246 | 21328 | 34844 | 1.27 | 1.0E-74 | BE549105.1 | EST_HUMAN | Homo sapiens KIAA0852 protein (KIAA0852), mRNA |
| 8246 | 21328 | 34845 | 1.27 | 1.0E-74 | BE549105.1 | EST_HUMAN | 601070088F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3469260 5' |
| 8005 | 22084 | 35627 | 7.81 | 1.0E-74 | AF214962.1 | NT | 601070088F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3469260 5' |
| 8034 | 22113 | 35656 | 0.67 | 1.0E-74 | BF351951.1 | EST_HUMAN | Homo sapiens tracheal epithelium enriched protein (PLUNC) gene, complete cds |
| 10445 | 23480 | 37086 | 0.95 | 1.0E-74 | AJ251950.1 | NT | MRO-HT0559-230500-021-403 HT0559 Homo sapiens cDNA |
| 10445 | 23480 | 37087 | 0.65 | 1.0E-74 | AJ251950.1 | NT | Homo sapiens partial AK155 gene for AK155 protein, exons 1-3 and joined CDS |
| 10699 | 23732 | 37337 | 1.77 | 1.0E-74 | 11420549 | NT | Homo sapiens partial AK155 gene for AK155 protein, exons 1-3 and joined CDS |
| 12154 | 25124 | 38826 | 1.94 | 1.0E-74 | 11417856 | NT | Homo sapiens hypothetical protein FLJ10783 (FLJ10783), mRNA |
| 12238 | 25182 | | 4.97 | 1.0E-74 | 11417856 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2), mRNA |
| 12386 | 15433 | 28566 | 1.61 | 1.0E-74 | AB002059.1 | NT | Homo sapiens DNA for Human P2XM, complete cds |
| 12925 | 28610 | | 1.38 | 1.0E-74 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 2709 | 15827 | | 5.1 | 8.0E-75 | AF176228.1 | NT | Homo sapiens DNA cytosine-5 methyltransferase 3B (DNMT3B) mRNA, complete cds |
| 12652 | 26376 | | 3.07 | 8.0E-76 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 2395 | 15926 | 28654 | 1.25 | 6.0E-75 | AI817415.1 | EST_HUMAN | wk38a08.x1 NCL CGAP_P122 Homo sapiens cDNA clone IMAGE:2417654 3' similar to gb:M14123_cds4 RETROVIRUS-RELATED POL POLYPROTEIN (HUMAN); |
| 11780 | 24770 | 38468 | 1.39 | 6.0E-75 | BE081831.1 | EST_HUMAN | 601588109F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3840130 5' |
| 9109 | 22188 | 35731 | 1.09 | 5.0E-76 | BE272326.1 | EST_HUMAN | 601126068F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:2893865 5' |
| 9317 | 22393 | 36944 | 0.77 | 5.0E-75 | AA132611.1 | EST_HUMAN | z017e08.r1 Shalagene cdon (#937204) Homo sapiens cDNA clone IMAGE:597174 5' |
| 9395 | 22470 | 36034 | 0.47 | 5.0E-75 | BE561655.1 | EST_HUMAN | 601348909F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3697458 5' |
| 9395 | 22470 | 36035 | 0.47 | 5.0E-75 | BE561655.1 | EST_HUMAN | 601348909F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3697458 5' |
| 9573 | 22715 | 36283 | 1.1 | 5.0E-75 | BF690254.1 | EST_HUMAN | 602186616T1 NIH_MGC_49 Homo sapiens cDNA clone IMAGE:4268738 3' |
| 10439 | 23474 | 37078 | 2.64 | 6.0E-75 | AI639623.1 | EST_HUMAN | 1831612.x1 NCL CGAP_G08 Homo sapiens cDNA clone IMAGE:2242390 3' similar to TR:P97361 P97361 HYPOTHETICAL 20.1 KD PROTEIN; |
| 175 | 13946 | 26373 | 2.1 | 4.0E-75 | BE081333.1 | EST_HUMAN | QV1-BT0632-210200-079-e02 BT0632 Homo sapiens cDNA |
| 471 | 13668 | | 1.68 | 4.0E-75 | N38757.1 | EST_HUMAN | y69h08.r1 Soares melanocyte 2N6HM Homo sapiens cDNA clone IMAGE:268055 5' |
| 1805 | 14954 | 28048 | 1.08 | 4.0E-75 | AW897230.1 | EST_HUMAN | CMO-NN0087-160400-336-a11 NN0087 Homo sapiens cDNA |
| 2810 | 18088 | 29101 | 5.64 | 4.0E-75 | BE408464.1 | EST_HUMAN | 601303869F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3638344 5' |
| 5848 | 18940 | 32120 | 0.68 | 4.0E-75 | | NT | Homo sapiens NIPSNAP, C. elegans, homolog 1 (NIPSNAP1), mRNA |
| 6848 | 18940 | 32121 | 0.68 | 4.0E-75 | 11417946 | NT | Homo sapiens NIPSNAP, C. elegans, homolog 1 (NIPSNAP1), mRNA |
| 6899 | 19668 | 32929 | 5.18 | 4.0E-75 | 5379457 | NT | Homo sapiens eukaryotic translation initiation factor 3, subunit 8 (110KD) (EIF3S8), mRNA |
| 6898 | 20048 | 33458 | 1.4 | 4.0E-75 | 11417946 | NT | Homo sapiens NIPSNAP, C. elegans, homolog 1 (NIPSNAP1), mRNA |
| 6898 | 20048 | 33459 | 1.4 | 4.0E-75 | 11417946 | NT | Homo sapiens NIPSNAP, C. elegans, homolog 1 (NIPSNAP1), mRNA |
| 10824 | 24007 | 37642 | 10.52 | 4.0E-75 | | NT | Homo sapiens myosin, heavy polypeptide 1, skeletal muscle, adult (MYH1), mRNA |
| 1027 | 14198 | 27256 | 3.8 | 3.0E-75 | AF157623.1 | NT | Homo sapiens HTRA serine protease (PRSS11) gene, complete cds |
| 1028 | 14198 | 27256 | 3.59 | 3.0E-75 | AF157623.1 | NT | Homo sapiens HTRA serine protease (PRSS11) gene, complete cds |
| 1883 | 16027 | 28134 | 2.23 | 3.0E-75 | AB011153.1 | NT | Homo sapiens mRNA for KIAA0581 protein, partial cds |
| 2180 | 16315 | 28444 | 1.44 | 3.0E-75 | 4507334 | NT | Homo sapiens synaptotagmin 1 (SYNU1), mRNA |
| 2494 | 16621 | 28740 | 4.39 | 3.0E-75 | 4759153 | NT | Homo sapiens synaptosomal-associated protein, 29kD (SNAP29) mRNA |
| 3086 | 16362 | 28279 | 0.96 | 3.0E-75 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 3258 | 16432 | 28449 | 1.09 | 3.0E-75 | AB011153.1 | NT | Homo sapiens mRNA for KIAA0581 protein, partial cds |
| 3431 | 16599 | 29616 | 0.93 | 3.0E-75 | M72393.1 | NT | Human calcium-dependent phospholipid-binding protein (PLA2) mRNA, complete cds |
| 3431 | 16599 | 29617 | 0.93 | 3.0E-75 | M72393.1 | NT | Human calcium-dependent phospholipid-binding protein (PLA2) mRNA, complete cds |
| 3833 | 16993 | 29995 | 0.6 | 3.0E-75 | M72393.1 | NT | Human calcium-dependent phospholipid-binding protein (PLA2) mRNA, complete cds |
| 4283 | 17428 | 30418 | 2.92 | 3.0E-75 | D87676.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 5365 | 18568 | 31434 | 1.15 | 3.0E-75 | 11420950 | NT | Homo sapiens adaptor-related protein complex 1, sigma 2 subunit (AP1S2), mRNA |

Page 376 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 5365 | 18558 | 31435 | 1.16 | 3.0E-76 | 11420958 | NT | Homo sapiens adaptor-related protein complex 1, sigma 2 subunit (API2), mRNA |
| 6637 | 19798 | 33185 | 0.59 | 3.0E-75 | AF123074.1 | NT | Homo sapiens cytoplasmic dynein intermediate chain 1 mRNA, complete cds |
| 6637 | 19798 | 33188 | 0.59 | 3.0E-75 | AF123074.1 | NT | Homo sapiens cytoplasmic dynein intermediate chain 1 mRNA, complete cds |
| 6809 | 20224 | 33654 | 1.67 | 3.0E-75 | 11526318 | NT | Homo sapiens HIR (histone cell cycle regulation defective, S. cerevisiae) homolog A (HIRA), mRNA |
| 6809 | 20224 | 33655 | 1.57 | 3.0E-75 | 11526319 | NT | Homo sapiens HIR (histone cell cycle regulation defective, S. cerevisiae) homolog A (HIRA), mRNA |
| 7285 | 20368 | 33821 | 4.12 | 3.0E-75 | 7682209 | NT | Homo sapiens KIAA0823 gene product (KIAA0823), mRNA |
| 7285 | 20368 | 33822 | 4.12 | 3.0E-75 | 7682209 | NT | Homo sapiens KIAA0823 gene product (KIAA0823), mRNA |
| 7800 | 20856 | 34346 | 2.68 | 3.0E-75 | 4885632 | NT | Homo sapiens Oncogene TIM (TIM) mRNA |
| 7800 | 20856 | 34347 | 2.68 | 3.0E-75 | 4885632 | NT | Homo sapiens Oncogene TIM (TIM) mRNA |
| 9185 | 22263 | 35805 | 1.33 | 3.0E-76 | 11420804 | NT | Homo sapiens Drosophila Kelch like protein (DKELCH-L), mRNA |
| 9880 | 22920 | 36504 | 0.83 | 3.0E-75 | 11420222 | NT | Homo sapiens cda Homo sapiens cDNA clone cdABED02.5 |
| 5780 | 18982 | | 1.34 | 2.0E-75 | AV734680.1 | EST_HUMAN | AV734680 cda Homo sapiens cDNA clone IMAGE:1915898 3' similar to TR:Q88388 Q88388 |
| 8950 | 22029 | 35570 | 1.36 | 2.0E-75 | AI311783.1 | EST_HUMAN | q981e02.x1 NCL_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:2832707 3' similar to contains PTR7.11 |
| 2377 | 15508 | 28535 | 10.98 | 1.0E-76 | AW168135.1 | EST_HUMAN | Xg60d02.x1 NCL_CGAP_U14 Homo sapiens cDNA clone IMAGE:2832707 3' similar to contains PTR7.11 |
| 3012 | 16188 | 29213 | 2.95 | 1.0E-75 | X62221.1 | NT | PTR7 repetitive element; |
| 7702 | 20821 | 34311 | 0.64 | 1.0E-75 | BE082528.1 | EST_HUMAN | H. sapiens ERCC2 gene, exons 1 & 2 (partial) |
| 7762 | 20821 | 34312 | 0.64 | 1.0E-75 | BE082528.1 | EST_HUMAN | RCS-BT0840-020300-031-H03 BT0840 Homo sapiens cDNA |
| 8809 | 21689 | | 3.12 | 1.0E-75 | AA399270.1 | EST_HUMAN | RCS-BT0840-020300-031-H03 BT0840 Homo sapiens cDNA |
| 9628 | 22683 | 36253 | 3.95 | 1.0E-75 | BF313845.1 | EST_HUMAN | z157h03.s1 Soares testis NHT Homo sapiens cDNA clone IMAGE:726486 3' similar to gb:M13332 40S |
| 9628 | 22683 | 36254 | 3.95 | 1.0E-75 | BF313845.1 | EST_HUMAN | RIBOSOMAL PROTEIN S17 (HUMAN); |
| 11122 | 24194 | | 6.68 | 1.0E-75 | AA694377.1 | EST_HUMAN | 601900294F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4129678 5' |
| | | | | | | spliced | 601900294F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4129678 5' |
| 11351 | 24413 | 38067 | 2.22 | 1.0E-75 | AF223391.1 | EST_HUMAN | 601800294F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:868599 3' |
| 12440 | 18502 | 31538 | 1.97 | 1.0E-75 | BE894192.1 | EST_HUMAN | ec77h03.s1 Stratagene lung (#837210) Homo sapiens cDNA clone IMAGE:868599 3' |
| 45 | 13284 | 26292 | 0.89 | 9.0E-76 | AI652948.1 | EST_HUMAN | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 45 | 13284 | 26293 | 0.89 | 9.0E-76 | AI652948.1 | EST_HUMAN | 601437130F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3922303 5' |
| 2486 | 15613 | | 0.94 | 9.0E-76 | AA702415.1 | EST_HUMAN | wp30b10.x1 NCL_CGAP_G08 Homo sapiens cDNA clone IMAGE:2307163 3' similar to TR:O76235 O76235 |
| | | | | | | TRAP1 ; | wp30b10.x1 NCL_CGAP_G08 Homo sapiens cDNA clone IMAGE:2307163 3' similar to TR:O76235 O76235 |
| | | | | | | TRAP1 ; | wp30b10.x1 NCL_CGAP_G08 Homo sapiens cDNA clone IMAGE:2307163 3' similar to TR:O76235 O76235 |
| | | | | | | EST_HUMAN | z188b07.s1 Soares fetal_liver_spleen_INFLS_S1 Homo sapiens cDNA clone IMAGE:447541 3' |

Page 377 of 550
Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 10105 | 23143 | 36741 | 5.44 | 9.0E-76 | M12937.1 | NT | Human ferritin Heavy subunit mRNA, complete cds |
| 961 | 14134 | 27194 | 1.18 | 8.0E-76 | 4504374 | NT | Homo sapiens H factor 1 (complement) (HF1) mRNA |
| 961 | 14134 | 27195 | 1.18 | 8.0E-76 | 4504374 | NT | Homo sapiens H factor 1 (complement) (HF1) mRNA |
| 2976 | 16152 | 29173 | 0.95 | 8.0E-76 | 7706724 | NT | Homo sapiens mediator (Sui2) mRNA |
| 6300 | 19473 | 32828 | 5.84 | 8.0E-76 | 11421442 | NT | Homo sapiens LIM domain kinase 1 (LIMK1) mRNA |
| 7668 | 20725 | 34200 | 1.17 | 8.0E-76 | 11435215 | NT | Homo sapiens serine/threonine kinase 2 (STK2) mRNA |
| 7739 | 20800 | 34289 | 1.05 | 8.0E-76 | 11419212 | NT | Homo sapiens mitochondrial carrier family protein (LOC55972) mRNA |
| 8492 | 21973 | 35110 | 0.69 | 8.0E-76 | 11416961 | NT | Homo sapiens AIM-1 protein (LOC51161) mRNA |
| 10589 | 23624 | 37231 | 1.26 | 8.0E-76 | M13792.1 | NT | Human adenosine deaminase (ADA) gene, complete cds |
| 10903 | 23997 | 37619 | 4.29 | 8.0E-76 | 10442821 | NT | Homo sapiens baculoviral IAP repeat-containing 6 (BIRC6) mRNA |
| 12824 | 25650 | | 2.51 | 8.0E-76 | 11417982 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330) mRNA |
| 797 | 13976 | 27029 | 1.99 | 7.0E-76 | 5016092 | NT | Homo sapiens dihydropyrimidin dehydrogenase (E3 component of pyruvate dehydrogenase complex, 2-oxo-glutarate complex, branched chain keto acid dehydrogenase complex) (OLD) mRNA |
| 3366 | 16638 | 29551 | 3.84 | 7.0E-76 | AF059490.1 | NT | Homo sapiens cAMP-specific phosphodiesterase 8A (PDE8A) mRNA, partial cds |
| 3372 | 16544 | 29558 | 9.08 | 7.0E-76 | 4505052 | NT | Homo sapiens lymphocyte antigen 76 (LY76) mRNA, and translated products |
| 4491 | 17831 | 30612 | 5.52 | 7.0E-76 | 4507184 | NT | Homo sapiens septaplethrin reductase (7,8-dihydrobiopterin:NADP+ oxidoreductase) (SPR) mRNA |
| 4491 | 17831 | 30613 | 5.52 | 7.0E-76 | 4507184 | NT | Homo sapiens septaplethrin reductase (7,8-dihydrobiopterin:NADP+ oxidoreductase) (SPR) mRNA |
| 1282 | 14419 | | 37.29 | 6.0E-76 | BE368253.1 | EST_HUMAN | 601312019F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3658787 5' |
| 11753 | 28030 | 37565 | 2.52 | 6.0E-76 | BE273201.1 | EST_HUMAN | 60114223F1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:3508029 5' |
| 1997 | 15138 | 28243 | 9.61 | 5.0E-76 | D63874.1 | NT | Human mRNA for HMG-1, complete cds |
| 1997 | 15138 | 28244 | 9.61 | 5.0E-76 | D63874.1 | NT | Human mRNA for HMG-1, complete cds |
| 1997 | 15138 | 28245 | 9.61 | 5.0E-76 | D63874.1 | NT | Human mRNA for HMG-1, complete cds |
| 3278 | 18452 | 29473 | 0.84 | 4.0E-76 | BE814099.1 | EST_HUMAN | QV3-BN0047-270700-283-g08 BN0047 Homo sapiens cDNA |
| 5384 | 18586 | 31455 | 1.13 | 4.0E-76 | BE783412.1 | EST_HUMAN | 601471728F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3874470 5' |
| 10230 | 23265 | 36854 | 5.48 | 4.0E-76 | D81626.1 | EST_HUMAN | HUM178G01B Human fetal brain (T Fujisawa) Homo sapiens cDNA clone GEN-178G01 5' |
| 10230 | 23265 | 36855 | 5.48 | 4.0E-76 | D81626.1 | EST_HUMAN | HUM178G01B Human fetal brain (T Fujisawa) Homo sapiens cDNA clone GEN-178G01 5' |
| 646 | 13631 | 26856 | 2.01 | 3.0E-76 | BF516262.1 | EST_HUMAN | U1-H-BW1-am2-b-04-O.U1.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3083882 3' |
| 846 | 13631 | 26857 | 2.01 | 3.0E-76 | BF516262.1 | EST_HUMAN | U1-H-BW1-am2-b-04-O.U1.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3083882 3' |
| 1629 | 14781 | 27866 | 8.04 | 3.0E-76 | 4503478 | NT | Homo sapiens eukaryotic translation elongation factor 1 beta 2 (EEF1B2) mRNA |
| 1828 | 14781 | 27867 | 8.04 | 3.0E-76 | 4503478 | NT | Homo sapiens eukaryotic translation elongation factor 1 beta 2 (EEF1B2) mRNA |
| 3515 | 16681 | 29691 | 5.75 | 3.0E-76 | BF375689.1 | EST_HUMAN | RC5-ST0300-180100-033-A03 ST0300 Homo sapiens cDNA |
| 3516 | 16681 | 29692 | 5.76 | 3.0E-76 | BF375689.1 | EST_HUMAN | RC5-ST0300-180100-033-A03 ST0300 Homo sapiens cDNA |
| 5352 | 18460 | 38822 | 1.82 | 3.0E-76 | Z41314.1 | EST_HUMAN | HSCZQD042 normalized infant brain cDNA Homo sapiens cDNA clone c-zqd04 3' |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 5851 | 19041 | 32347 | 0.92 | 3.0E-76 | AA160611.1 | EST_HUMAN | z073c07.r1 Stratagene pancreas (#837208) Homo sapiens cDNA clone IMAGE:592524 5' similar to |
| 6110 | 16200 | 32625 | 0.61 | 3.0E-76 | AW027705.1 | EST_HUMAN | gbL32978 MIXED LINEAGE KINASE 1 (HUMAN); |
| 6498 | 19684 | 33027 | 8.19 | 3.0E-76 | AF286598.1 | NT | ww75c05.x1 Soares_thymus_NHFr Homo sapiens cDNA clone IMAGE:2535368 3' |
| 8344 | 21425 | 34951 | 1.27 | 3.0E-76 | N42671.1 | EST_HUMAN | Homo sapiens angiotensin binding protein 1 mRNA, complete cds |
| 9917 | 22957 | 36544 | 3.03 | 3.0E-76 | AW29353.1 | EST_HUMAN | y20g10.r1 Soares_melanocyte_2NBM Homo sapiens cDNA clone IMAGE:271842 5' |
| 9942 | 22981 | 36572 | 1.08 | 3.0E-76 | AA42309.1 | EST_HUMAN | xs49h01.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2773008 3' |
| 8942 | 22983 | 36573 | 1.08 | 3.0E-76 | AA42309.1 | EST_HUMAN | z544h11.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:757481 5' |
| 12144 | 26943 | 31763 | 2.1 | 3.0E-76 | AW67994.1 | EST_HUMAN | z544h11.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:757481 5' |
| 12251 | 26184 | 31842 | 6.95 | 3.0E-76 | AW580455.1 | EST_HUMAN | EST380060 MAGC resequences, MAGJ Homo sapiens cDNA |
| 292 | 13509 | 26544 | 1.11 | 2.0E-76 | D84295.1 | NT | EST386525 MAGC resequences, MAGJ Homo sapiens cDNA |
| 352 | 13563 | 26590 | 3.21 | 2.0E-76 | D84295.1 | NT | Human mRNA for possible protein TPRDII, complete cds |
| 362 | 13563 | 26691 | 3.21 | 2.0E-76 | D84295.1 | NT | Human mRNA for possible protein TPRDII, complete cds |
| 473 | 13688 | | 0.96 | 2.0E-76 | 4557662 | NT | Human mRNA for possible protein TPRDII, complete cds |
| 603 | 13792 | 26812 | 1.07 | 2.0E-76 | 4503944 | NT | Homo sapiens immunoglobulin (CD79A) binding protein 1 (IGBP1) mRNA |
| 1068 | 14222 | 27281 | 1.66 | 2.0E-76 | 4758053 | NT | Homo sapiens glucagon (GCG) mRNA |
| 1566 | 14719 | 27789 | 11.31 | 2.0E-76 | 4504028 | NT | Homo sapiens cAMP responsive element binding protein 1 (CREB1) mRNA |
| 1566 | 14719 | 27800 | 11.31 | 2.0E-76 | 4504028 | NT | Homo sapiens GM2 ganglioside activator protein (GM2A) mRNA |
| 1982 | 15125 | 28227 | 0.99 | 2.0E-76 | AA253954.1 | EST_HUMAN | Homo sapiens GM2 ganglioside activator protein (GM2A) mRNA |
| 2904 | 15062 | 29097 | 2.13 | 2.0E-76 | P23203 | SWISSPROT | z660h11.s1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:701825 3' |
| | | | | | | | OLFACTORY RECEPTOR-LIKE PROTEIN F5 |
| 3369 | 16541 | 29555 | 2.21 | 2.0E-76 | AA445992.1 | EST_HUMAN | z664e02.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:780986 3' similar to SW:ITB5_HUMAN |
| | | | | | | | P18084 INTEGRIN BETA-5 SUBUNIT PRECURSOR ; |
| 3369 | 16541 | 29556 | 2.21 | 2.0E-76 | AA445992.1 | EST_HUMAN | z664e02.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:780986 3' similar to SW:ITB6_HUMAN |
| | | | | | | | P18084 INTEGRIN BETA-5 SUBUNIT PRECURSOR ; |
| 3365 | 16730 | 29749 | 0.93 | 2.0E-76 | A1821149.1 | EST_HUMAN | ac83b02.y6 Stratagene lung (#837210) Homo sapiens cDNA clone IMAGE:869163 5' similar to TR:O14691 |
| 4234 | 13509 | 28544 | 1.01 | 2.0E-76 | D84295.1 | NT | O14591 SIMILARITY TO P22059 ; |
| 4853 | 17789 | 30773 | 0.91 | 2.0E-76 | AL163283.2 | NT | Human mRNA for possible protein TPRDII, complete cds |
| 6062 | 18180 | 31185 | 11.15 | 2.0E-76 | AW879618.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C083 |
| 5163 | 18285 | 31249 | 3.13 | 2.0E-76 | 6174586 | NT | QV9-O70028-220300-132-b11 OT0028 Homo sapiens cDNA |
| 5424 | 18625 | | 2.99 | 2.0E-76 | AF127845.1 | NT | Homo sapiens murine retrovirus integration site 1 homolog (MRV1) mRNA |
| 5736 | 18928 | 32226 | 4.83 | 2.0E-76 | AB029004.1 | NT | Gonilla gonilla difactory receptor (GGO18) gene, partial cds |
| 7570 | 20942 | 34119 | 0.69 | 2.0E-76 | 11421326 | NT | Homo sapiens mRNA for KIAA1081 protein, partial cds |
| 7592 | 20663 | 34139 | 0.69 | 2.0E-76 | 11428908 | NT | Homo sapiens KIAA0783 gene product (KIAA0783), mRNA |
| | | | | | | | Homo sapiens A kinase (PRKA) anchor protein 10 (AKAP10), mRNA |

Page 379 of 550
Table 4
Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|-----------------------------|-------------------------------|---|
| 7840 | 20685 | 34397 | 1.82 | 2.0E-76 | 11427410 | NT | Homo sapiens TPCR88 protein (HSTPCR88P), mRNA |
| 10489 | 23524 | 37134 | 1.42 | 2.0E-76 | 11437211 | NT | Homo sapiens similar to ribosomal protein S28 (H. sapiens) (LOC83150), mRNA |
| 11161 | 24232 | 37862 | 2.44 | 2.0E-76 | 7549807 | NT | Homo sapiens HIRA interacting protein 4 (dnal-like) (HIRIP4), mRNA |
| 4412 | 17664 | 30639 | 2.49 | 1.0E-76 | D63874.1 | NT | Human mRNA for HMG-1, complete cds |
| 4412 | 17664 | 30540 | 2.49 | 1.0E-76 | D63874.1 | NT | Human mRNA for HMG-1, complete cds |
| 5684 | 18781 | 31801 | 5.93 | 1.0E-76 | BE786537.1 | EST_HUMAN | 80158886F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3944302 5' |
| 6374 | 19543 | | 0.7 | 1.0E-76 | AA333207.1 | EST_HUMAN | EST137301 Embryo, 8 week 1 Homo sapiens cDNA 5' end |
| 7083 | 20116 | 33530 | 4.66 | 9.0E-77 | BE869525.1 | EST_HUMAN | 80161243F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913737 5' |
| 13003 | 28662 | | 1.98 | 8.0E-77 | BE410354.1 | EST_HUMAN | 80130233F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3636753 5' |
| 192 | 13414 | 26443 | 0.77 | 8.0E-77 | R83144.1 | EST_HUMAN | yp11h02.r1 Soares breast3NHBat Homo sapiens cDNA clone IMAGE:187155 5' similar to SP-ANKK HUMAN Q01484 ANKYRIN, BRAIN VARIANT 1; |
| 4644 | 17780 | 30782 | 1.41 | 8.0E-77 | BF205181.1 | EST_HUMAN | 80186926F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4109503 5' |
| 5569 | 18766 | 31807 | 1.37 | 8.0E-77 | 4506230 | NT | Homo sapiens proteasome (prosome, macropain) 26S subunit, non-ATPase, 7 (Mav34 homolog) (PSMD7) mRNA |
| 11689 | 24746 | 38438 | 1.78 | 8.0E-77 | AA019770.1 | EST_HUMAN | ze62e02.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:363578 5' |
| 11689 | 24746 | 38439 | 1.78 | 8.0E-77 | AA019770.1 | EST_HUMAN | ze62e02.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:363578 5' |
| 12978 | 25637 | 31982 | 32.6 | 8.0E-77 | R00245.1 | EST_HUMAN | ye69f04.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:123007 3' similar to cortalsin MER10 repetitive element; |
| 1983 | 15126 | 28228 | 2.2 | 7.0E-77 | AA625755.1 | EST_HUMAN | zu01g01.s1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:745392 3' |
| 2482 | 15609 | 28733 | 2.78 | 7.0E-77 | 4503944 | NT | Homo sapiens polymerase (RNA) II (DNA directed) polypeptide E (25kD) (POLR2E) mRNA |
| 2492 | 15609 | 28734 | 2.78 | 7.0E-77 | 4503944 | NT | Homo sapiens polymerase (RNA) II (DNA directed) polypeptide E (25kD) (POLR2E) mRNA |
| 273 | 13491 | 26522 | 4 | 6.0E-77 | 4504600 | NT | Homo sapiens Interferon (alpha, beta and omega) receptor 2 (IFNAR2) mRNA |
| 1165 | 14329 | 27384 | 1.05 | 6.0E-77 | AW857783.1 | EST_HUMAN | EST1368823 MAGE resequences, MAGE Homo sapiens cDNA |
| 1674 | 14727 | 27808 | 3.29 | 6.0E-77 | A1204086.1 | EST_HUMAN | qe77h12.x1 Soares_fetal_lung_NBHL19W Homo sapiens cDNA clone IMAGE:1745063 3' |
| 1264 | 14421 | 27486 | 2.89 | 5.0E-77 | AF041015.1 | NT | 7 Homo sapiens glucokinase (GCK) gene, exon 2 |
| 1391 | 14545 | 27821 | 3.48 | 5.0E-77 | 4557250 | NT | Homo sapiens disintegrin and metalloprotease domain 10 (ADAM10) mRNA |
| 2749 | 16866 | 28977 | 1.76 | 5.0E-77 | AF162669.1 | NT | Homo sapiens tucoid-like kinase 1 (TLK1) mRNA, complete cds |
| 2822 | 15936 | 29046 | 1.58 | 5.0E-77 | 4503160 | NT | Homo sapiens cullin 1 (CUL1) mRNA |
| 3611 | 16775 | 29781 | 0.65 | 5.0E-77 | 8394518 | NT | Homo sapiens ubiquitin specific protease 18 (USP18), mRNA |
| 4825 | 17958 | 30944 | 0.97 | 5.0E-77 | 5031680 | NT | Homo sapiens EGF-like repeats and disordin-like domains 3 (EDIL3), mRNA |
| 4825 | 17958 | 30945 | 0.97 | 5.0E-77 | 5031680 | NT | Homo sapiens EGF-like repeats and disordin-like domains 3 (EDIL3), mRNA |
| 5052 | 18180 | 31156 | 3.57 | 5.0E-77 | AL043963.1 | EST_HUMAN | DKFZp434G1728.r1 434 (synonym: htes) Homo sapiens cDNA clone DKFZp434G1728 5' |
| 6922 | 20237 | 33671 | 0.65 | 5.0E-77 | M13976.1 | NT | Homo sapiens protein kinase C beta-II type (PRKCB.1) mRNA, complete cds |
| 7480 | 20555 | 34027 | 0.59 | 5.0E-77 | X98298.1 | NT | H. sapiens mRNA for ubiquitin hydrolase |

Single Exon Probes Expressed in Placenta

| Probe, SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|-------------------|-----------------|----------------|-------------------|--------------------------------------|-----------------------|-------------------------|---|
| 7767 | 20555 | 34027 | 0.72 | 5.0E-77 | X98286.1 | NT | H. sapiens mRNA for ubiquitin hydrolase |
| 8663 | 21644 | 35183 | 1.21 | 5.0E-77 | 11428849 | NT | Homo sapiens 3-hydroxyisobutyryl-Coenzyme A hydrolase (HIBCH), mRNA |
| 8563 | 21644 | 35184 | 1.21 | 5.0E-77 | 11428849 | NT | Homo sapiens 3-hydroxyisobutyryl-Coenzyme A hydrolase (HIBCH), mRNA |
| 9769 | 22765 | 36335 | 2.61 | 5.0E-77 | 11421928 | NT | Homo sapiens sorting nexin 6 (SNX6), mRNA |
| 9769 | 22765 | 36336 | 2.61 | 5.0E-77 | 11421928 | NT | Homo sapiens sorting nexin 5 (SNX5), mRNA |
| 10708 | 23741 | 37346 | 0.97 | 5.0E-77 | AB002297.1 | NT | Human mRNA for KIAA0269 gene, partial cds |
| 10708 | 23741 | 37347 | 0.97 | 5.0E-77 | AB002297.1 | NT | Human mRNA for KIAA0269 gene, partial cds |
| 2029 | 15170 | 28277 | 1.39 | 3.0E-77 | 5730038 | NT | Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA |
| 2029 | 15170 | 28278 | 1.39 | 3.0E-77 | 5730038 | NT | Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA |
| 10498 | 23531 | 37139 | 0.9 | 3.0E-77 | H65187.1 | EST_HUMAN | Human S17447 S17447 PROBABLE LIGAND-BINDING PROTEIN RY2G5 - ; |
| 10498 | 23531 | 37140 | 0.9 | 3.0E-77 | H65187.1 | EST_HUMAN | Human S17447 S17447 PROBABLE LIGAND-BINDING PROTEIN RY2G5 - ; |
| 11115 | 24187 | 37819 | 2.83 | 3.0E-77 | BF359917.1 | EST_HUMAN | PM3-MT0078-080800-005-g03 MT0078 Homo sapiens cDNA |
| 1383 | 14538 | 27812 | 1.74 | 2.0E-77 | AV76461.1 | EST_HUMAN | AV764617 MDS Homo sapiens cDNA clone MDSBTF10 5' |
| 1484 | 14618 | 27702 | 9.74 | 2.0E-77 | AW99771.2 | EST_HUMAN | RC3-BN0053-170200-011-h01 BN0053 Homo sapiens cDNA |
| 2157 | 15293 | 28419 | 1.1 | 2.0E-77 | L41825.1 | NT | Homo sapiens CYP17 gene, 5' end |
| 2170 | 15305 | 28432 | 2.75 | 2.0E-77 | 7706315 | NT | Homo sapiens CGI-79 protein (LOC51634), mRNA |
| 2659 | 16067 | 28895 | 1.69 | 2.0E-77 | AB037636.1 | NT | Homo sapiens mRNA for KIAA1415 protein, partial cds |
| 2659 | 16067 | 28896 | 1.69 | 2.0E-77 | AB037636.1 | NT | Homo sapiens mRNA for KIAA1415 protein, partial cds |
| 4143 | 17295 | 30287 | 1.98 | 2.0E-77 | BE044316.1 | EST_HUMAN | h043005.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:3040113 3' similar to SW:GAG2_HUMAN P10284 RETROVIRUS-RELATED GAG POLYPROTEIN ; |
| 4534 | 17672 | 30856 | 0.67 | 2.0E-77 | AI613519.1 | EST_HUMAN | Iw22g02.x1 NCI CGAP Brn52 Homo sapiens cDNA clone IMAGE:2260466 3' similar to TR:O65245 |
| 4534 | 17672 | 30857 | 0.67 | 2.0E-77 | AI613519.1 | EST_HUMAN | Iw22g02.x1 NCI CGAP Brn52 Homo sapiens cDNA clone IMAGE:2260466 3' similar to TR:O65245 |
| | | | | | | | O65245 F21E10.7 PROTEIN ; |
| 4891 | 18021 | 31006 | 2.34 | 2.0E-77 | AA653025.1 | EST_HUMAN | ns68g12.s1 NCI CGAP_P12 Homo sapiens cDNA clone IMAGE:1188838 similar to SW:RL28_HUMAN P47814 60S RIBOSOMAL PROTEIN L28. [1] contains element MSK1 repetitive element ; |
| 6075 | 19257 | 32586 | 2.08 | 2.0E-77 | BE288940.1 | EST_HUMAN | 601119852F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3029438 5' |
| 6301 | 19474 | 32829 | 1.86 | 2.0E-77 | BE787143.1 | EST_HUMAN | 601476902F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3878505 5' |
| 7328 | 20407 | 33869 | 16.02 | 2.0E-77 | AI633003.1 | EST_HUMAN | at74608.x1 Barstead cdon HPLRB7 Homo sapiens cDNA clone IMAGE:2377720 3' similar to TR:Q13311 Q13311 TAX1-BINDING PROTEIN TXBP151. [1] ; |

Page 381 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 8728 | 21806 | 35343 | 0.86 | 2.0E-77 | A1362707.1 | EST_HUMAN | qy70c09.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2017360 3' similar to WP:F28D11.1 |
| 9728 | 22783 | 36308 | 5.68 | 2.0E-77 | U50321.1 | NT | CE05766 LOW DENSITY LIPID RECEPTOR-RELATED PROTEIN; |
| 9728 | 22783 | 36307 | 5.68 | 2.0E-77 | U50321.1 | NT | Human protein kinase C substrate 80K-H (PRKCSH) gene, exon 7 |
| 10189 | 23236 | 36826 | 0.47 | 2.0E-77 | BF310349.1 | EST_HUMAN | Human protein kinase C substrate 80K-H (PRKCSH) gene, exon 7 |
| 10189 | 23236 | 36826 | 0.47 | 2.0E-77 | BF310349.1 | EST_HUMAN | 601895183F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4124541 5' |
| 44 | 13282 | 26288 | 2.62 | 1.0E-77 | AB033102.1 | NT | 601895183F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4124541 5' |
| 44 | 13282 | 26289 | 2.62 | 1.0E-77 | AB033102.1 | NT | Homo sapiens mRNA for KIAA1276 protein, partial cds |
| 283 | 13501 | 26533 | 1.68 | 1.0E-77 | 4502166 | NT | Homo sapiens mRNA for KIAA1276 protein, partial cds |
| 283 | 13501 | 26534 | 1.68 | 1.0E-77 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 898 | 16025 | 27140 | 3.4 | 1.0E-77 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 898 | 16025 | 27141 | 3.4 | 1.0E-77 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 1969 | 15112 | 28213 | 1.36 | 1.0E-77 | AW058119.1 | EST_HUMAN | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 2516 | 15841 | 28763 | 1.17 | 1.0E-77 | AB028024.1 | NT | wk63e05.x1 Soares_thymus_NHFTn Homo sapiens cDNA clone IMAGE:2536160 3' |
| 3110 | 16286 | 29300 | 2.28 | 1.0E-77 | 4503300 | NT | Homo sapiens mRNA for KIAA1101 protein, complete cds |
| 4473 | 17613 | 30692 | 4.24 | 1.0E-77 | 7708299 | NT | Homo sapiens 2,4-dienoyl CoA reductase 1, mitochondrial (DECR1), mRNA |
| 4646 | 17782 | 30764 | 22.17 | 1.0E-77 | AJ228041.1 | NT | Homo sapiens CGI-60 protein (LOC51628), mRNA |
| 4774 | 17909 | 30892 | 2.05 | 1.0E-77 | 6552322 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3 |
| 4815 | 17948 | 30933 | 0.81 | 1.0E-77 | A1273014.1 | EST_HUMAN | Homo sapiens breast cancer 1, early onset (BRCA1), transcript variant BRCA1-exon4, mRNA |
| 8051 | 19233 | 32557 | 1.48 | 1.0E-77 | AF086944.1 | NT | Homo sapiens CGAP_K108 Homo sapiens cDNA clone IMAGE:1981110 3' |
| 6051 | 19233 | 32558 | 1.48 | 1.0E-77 | AF086944.1 | NT | Homo sapiens breast cancer 1, early onset (BRCA1), transcript variant BRCA1-exon4, mRNA |
| 6172 | 19349 | 32694 | 1.72 | 1.0E-77 | M25844.1 | NT | Homo sapiens dynactin 1 (DCTN1) gene, exons 27 and 28 |
| 6577 | 19739 | 33120 | 1.1 | 1.0E-77 | 4885182 | NT | Homo sapiens dynactin 1 (DCTN1) gene, exons 27 and 28 |
| 7198 | 20063 | 33473 | 15.97 | 1.0E-77 | 581412 | NT | Human von Willebrand factor gene, exon 20 |
| 7044 | 20899 | 34402 | 0.82 | 1.0E-77 | X04571.1 | NT | Homo sapiens diaphanous (Drosophila, homolog) 1 (DIAPH1), mRNA |
| 7940 | 20990 | 34500 | 0.71 | 1.0E-77 | X04571.1 | NT | Homo sapiens elastin (supravalvular aortic stenosis, Williams-Bauren syndrome) (ELN), mRNA |
| 9465 | 22522 | 36085 | 0.83 | 1.0E-77 | X04364.1 | NT | Human mRNA for kidney epidermal growth factor (EGF) precursor |
| 9465 | 22522 | 36086 | 0.83 | 1.0E-77 | X04364.1 | NT | H. sapiens DNA for Gene cGMP-PDE gene |
| 10742 | 23776 | 37387 | 1.05 | 1.0E-77 | AB028998.1 | NT | H. sapiens DNA for Gene cGMP-PDE gene |
| 10742 | 23776 | 37388 | 1.05 | 1.0E-77 | AB028998.1 | NT | Homo sapiens hu-GIAT-P mRNA for glucanyltransferase, complete cds |
| 10742 | 23776 | 37388 | 1.05 | 1.0E-77 | AB028998.1 | NT | Homo sapiens hu-GIAT-P mRNA for glucanyltransferase, complete cds |

Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 10773 | 23808 | 37429 | 2.76 | 9.0E-78 | AW763302.1 | EST_HUMAN | RC3-CT0264-280699-011-505 CT0264 Homo sapiens cDNA |
| 6576 | 19738 | 33118 | 2.29 | 8.0E-78 | AW947081.1 | EST_HUMAN | RC2-ET0023-080500-012-505 ET0023 Homo sapiens cDNA |
| 6576 | 19738 | 33119 | 2.29 | 8.0E-78 | AW947081.1 | EST_HUMAN | RC2-ET0023-080500-012-505 ET0023 Homo sapiens cDNA |
| 88 | 13323 | 26351 | 1.66 | 6.0E-78 | AU118789.1 | EST_HUMAN | AU118789 HEMBA1 Homo sapiens cDNA clone HEMBA1004354 5' |
| 88 | 13323 | 26352 | 1.66 | 6.0E-78 | AU118789.1 | EST_HUMAN | AU118789 HEMBA1 Homo sapiens cDNA clone HEMBA1004354 5' |
| 3389 | 16559 | 29574 | 0.9 | 6.0E-78 | BF344101.1 | EST_HUMAN | 502016326F1 NCI_CGAP_Bn64 Homo sapiens cDNA clone IMAGE:4152511 5' |
| 6690 | 19848 | | 2.54 | 6.0E-78 | 11432710 | NT | Homo sapiens GDNF family receptor alpha 1 (GFR1), mRNA |
| 224 | 13446 | 26474 | 6.13 | 5.0E-78 | 11422486 | NT | Homo sapiens hypothetical protein FL111316 (FL111316), mRNA |
| 2629 | 15752 | 28887 | 5.71 | 5.0E-78 | AW673424.1 | EST_HUMAN | ba64h03.y8 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2800405 5' similar to WP:Y4886A.6 |
| 3472 | 16639 | 29659 | 5.09 | 5.0E-78 | M55586.1 | NT | CE22121 ; Human collagenase type IV (CLG4) gene, exon 6 |
| 5528 | 18725 | 31741 | 2.73 | 5.0E-78 | AF038536.1 | NT | Homo sapiens Basal's macular dystrophy related protein mRNA, partial cds |
| 5593 | 18897 | 32177 | 18.13 | 5.0E-78 | 11416585 | NT | Homo sapiens transforming growth factor, beta-induced, 88kD (TGFBI), mRNA |
| 7304 | 20398 | 33846 | 2.18 | 5.0E-78 | AW953120.1 | EST_HUMAN | EST355190 IMAGE resequencing, MAGB Homo sapiens cDNA |
| 9284 | 22360 | 35910 | 7.02 | 5.0E-78 | U60895.1 | NT | Human lysosomal alpha-mannosidase (manB) gene, exon 7 |
| 9285 | 22361 | 35911 | 2.94 | 5.0E-78 | BE960836.1 | EST_HUMAN | 501648061F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:3931887 5' |
| 1160 | 14324 | 27378 | 1.29 | 4.0E-78 | AL043314.2 | EST_HUMAN | DKFZp434N0323_J1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434N0323 5' |
| 1547 | 14599 | 27778 | 1.81 | 4.0E-78 | AL355841.1 | NT | Novel human gene mapping to chromosome 22 |
| 2392 | 15523 | 28652 | 5.1 | 4.0E-78 | AF107403.1 | NT | Homo sapiens pre-mRNA splicing factor (SFRS3) mRNA, complete cds |
| 4442 | 17582 | 30560 | 6.17 | 4.0E-78 | 7958876 | NT | Homo sapiens synovial (LOC30816), mRNA |
| 4896 | 18026 | 31012 | 1.2 | 4.0E-78 | 4505806 | NT | Homo sapiens phosphatidylinositol 4-kinase, catalytic, alpha polypeptide (PIK4CA) mRNA |
| 4896 | 18026 | 31013 | 1.2 | 4.0E-78 | 4505806 | NT | Homo sapiens phosphatidylinositol 4-kinase, catalytic, alpha polypeptide (PIK4CA) mRNA |
| 5888 | 19076 | 32385 | 1.25 | 4.0E-78 | 11420732 | NT | Homo sapiens SFRS protein kinase 2 (SRPK2), mRNA |
| 6302 | 19476 | 32830 | 0.71 | 4.0E-78 | 7662109 | NT | Homo sapiens KIAA0428 gene product (KIAA0428), mRNA |
| 6302 | 19476 | 32831 | 0.71 | 4.0E-78 | 7662109 | NT | Homo sapiens KIAA0428 gene product (KIAA0428), mRNA |
| 6703 | 19861 | 33251 | 0.74 | 4.0E-78 | 4508736 | NT | Homo sapiens ribosomal protein S8 kinase, 70kD, polypeptide 1 (RPS6KB1) mRNA |
| 7680 | 20727 | 34203 | 0.69 | 4.0E-78 | 4508736 | NT | Homo sapiens ribosomal protein S8 kinase, 70kD, polypeptide 1 (RPS6KB1) mRNA |
| 8054 | 22133 | 35677 | 1.15 | 4.0E-78 | AF012872.1 | NT | Homo sapiens phosphatidylinositol 4-kinase 230 (p4K230) mRNA, complete cds |
| 8054 | 22133 | 35678 | 1.15 | 4.0E-78 | AF012872.1 | NT | Homo sapiens phosphatidylinositol 4-kinase 230 (p4K230) mRNA, complete cds |
| 9568 | 22710 | 36278 | 0.61 | 4.0E-78 | 11417251 | NT | Homo sapiens X-ray repair complementing defective repair in Chinese hamster cells 4 (XRCC4), mRNA |
| 10660 | 23694 | 37303 | 1.95 | 4.0E-78 | 11560151 | NT | Homo sapiens hypothetical C2H2 zinc finger protein FLJ22504 (FLJ22504), mRNA |
| 10660 | 23694 | 37304 | 1.95 | 4.0E-78 | 11560151 | NT | Homo sapiens hypothetical C2H2 zinc finger protein FLJ22504 (FLJ22504), mRNA |
| 11705 | 24702 | 38394 | 1.84 | 4.0E-78 | AF169149.1 | NT | Homo sapiens e-Cadherin (CABP1) mRNA, complete cds |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 11854 | 24842 | 38538 | 6.72 | 4.0E-78 | X05844.1 | NT | Human transforming growth factor-beta precursor gene exons 4-5 (and joined mature peptide) |
| 12855 | 28568 | 31891 | 3.93 | 4.0E-78 | AB011389.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 165 | 13390 | 28417 | 1.69 | 3.0E-78 | AF095601.1 | NT | Homo sapiens eRF1 gene, complete cds |
| 165 | 13390 | 28418 | 1.69 | 3.0E-78 | AF095901.1 | NT | Homo sapiens eRF1 gene, complete cds |
| 2488 | 18615 | 28736 | 1.01 | 3.0E-78 | 7706705 | NT | Homo sapiens SH3 and PX domain-containing protein SH3PX1 (SH3PX1), mRNA |
| 3860 | 17020 | | 0.81 | 3.0E-78 | AU140804.1 | EST_HUMAN | AU140804 PLACE3 Homo sapiens cDNA clone PLACE3000373 5' |
| 3918 | 17077 | 30074 | 0.78 | 3.0E-78 | 4507334 | NT | Homo sapiens synaptotagmin 1 (SYNJ1), mRNA |
| 4221 | 17077 | 30074 | 0.82 | 3.0E-78 | 4607334 | NT | Homo sapiens synaptotagmin 1 (SYNJ1), mRNA |
| 10493 | 23528 | | 5.44 | 3.0E-78 | BE144758.1 | EST_HUMAN | CMO-HT0180-041099-065-c07 HT0180 Homo sapiens cDNA |
| 11227 | 24296 | 37637 | 2.5 | 3.0E-78 | BE156318.1 | EST_HUMAN | QV0-HT0367-160200-114-909 HT0367 Homo sapiens cDNA |
| 3191 | 16368 | | 2.49 | 2.0E-78 | U04489.1 | NT | Homo sapiens type IV collagen alpha 5 chain (COL4A5) gene, exon 20 |
| 4122 | 17276 | | 1.99 | 2.0E-78 | AA311872.1 | EST_HUMAN | EST182583 Jurkat T-cells VI Homo sapiens cDNA 5' end |
| 7631 | 20700 | 34177 | 1.09 | 2.0E-78 | AW402306.1 | EST_HUMAN | UHF-BKO-adj-g-10-Q-U1.r1 NIH_MGC_38 Homo sapiens cDNA clone IMAGE:3054139 5' |
| 7631 | 20700 | 34178 | 1.09 | 2.0E-78 | AW402306.1 | EST_HUMAN | UHF-BKO-adj-g-10-Q-U1.r1 NIH_MGC_38 Homo sapiens cDNA clone IMAGE:3054139 5' |
| 7908 | 20960 | 34466 | 3.38 | 2.0E-78 | BF889800.1 | EST_HUMAN | 602186529F1 NIH_MGC_49 Homo sapiens cDNA clone IMAGE:4286599 5' |
| 8230 | 21312 | 34832 | 2.49 | 2.0E-78 | AV714177.1 | EST_HUMAN | AV714177 DCB Homo sapiens cDNA clone DCBAW/F09 5' |
| 8648 | 21728 | 35282 | 1.72 | 2.0E-78 | AI557509.1 | EST_HUMAN | P12.1_16 B07.r tumor2 Homo sapiens cDNA 3' |
| 8648 | 21728 | 35283 | 1.72 | 2.0E-78 | AI557509.1 | EST_HUMAN | P12.1_16 B07.r tumor2 Homo sapiens cDNA 3' |
| 11336 | 24399 | 38048 | 8.58 | 2.0E-78 | AI187837.1 | EST_HUMAN | q60R05.x1 NCI_CGAP_Brn26 Homo sapiens cDNA clone IMAGE:1859981 3' similar to WP.R80.1 |
| 11358 | 24420 | | 1.47 | 2.0E-78 | BE439409.1 | EST_HUMAN | CE06325 PROTEIN KINASE : |
| 11358 | 24447 | 38108 | 3.01 | 2.0E-78 | N65851.1 | EST_HUMAN | HTM1-Q28F1 HTM1 Homo sapiens cDNA |
| 6420 | 18921 | 31697 | 3.16 | 1.0E-78 | 11417304 | NT | zsa48f12.s1 Scores fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:265823 3' |
| 7094 | 18521 | 31514 | 0.82 | 1.0E-78 | AV648699.1 | EST_HUMAN | Homo sapiens GAP-like protein (LOC51306), mRNA |
| 8353 | 21434 | | 1.81 | 1.0E-78 | U52373.1 | NT | Homo sapiens GAP-like protein (LOC51306), mRNA |
| 12324 | 25234 | 32107 | 1.83 | 1.0E-78 | 11430460 | NT | Human serine/threonine kinase MNB (mnb) mRNA, complete cds |
| 12422 | 25289 | 32086 | 2.44 | 1.0E-78 | 11435903 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 4820 | 17953 | 30638 | 4.04 | 9.0E-79 | 11625891 | NT | Homo sapiens similar to lymphocyte activation-associated protein (H. sapiens) (LOC63140), mRNA |
| 4886 | 18115 | 31093 | 1.6 | 9.0E-79 | BE000837.1 | EST_HUMAN | Homo sapiens peptide YY (PYY), mRNA |
| 5549 | 18746 | 31781 | 16.98 | 9.0E-79 | AB028070.1 | NT | RC2-BN0074-080300-014-c12 BN0074 Homo sapiens cDNA |
| 6470 | 19637 | 32696 | 2.52 | 9.0E-79 | | NT | Homo sapiens mRNA for activator of S phase Kinase, complete cds |
| 6752 | 19608 | 33301 | 0.98 | 9.0E-79 | 11430822 | NT | Homo sapiens ubiquitin-conjugating enzyme E2E 3 (homologous to yeast UBC4/5) (UBE2E3) mRNA |
| | | | | | | NT | Homo sapiens hypothetical protein FLJ11284 (FLJ11284), mRNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 7606 | 26848 | | 0.99 | 9.0E-79 | 11424427 | NT | Homo sapiens hypothetical protein FLJ20345 (FLJ20345), mRNA |
| 7748 | 20808 | 34298 | 0.63 | 9.0E-79 | 11421735 | NT | Homo sapiens cAMP response element-binding protein CRE-BPa (H_GS165L16.1), mRNA |
| 7748 | 20808 | 34299 | 0.63 | 9.0E-79 | 11421735 | NT | Homo sapiens cAMP response element-binding protein CRE-BPa (H_GS165L16.1), mRNA |
| 8541 | 21622 | 35158 | 0.52 | 9.0E-79 | 11417260 | NT | Homo sapiens threonyl-tRNA synthetase (TARS), mRNA |
| 8541 | 21622 | 35159 | 0.52 | 9.0E-79 | 11417260 | NT | Homo sapiens threonyl-tRNA synthetase (TARS), mRNA |
| 9263 | 22340 | 35890 | 4.78 | 9.0E-79 | J02853.1 | NT | Homo sapiens casein kinase II alpha subunit mRNA, complete cds |
| 9263 | 22340 | 35891 | 4.78 | 9.0E-79 | J02853.1 | NT | Homo sapiens casein kinase II alpha subunit mRNA, complete cds |
| 9560 | 22722 | 36292 | 0.66 | 9.0E-79 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 10574 | 23609 | 37214 | 0.82 | 9.0E-79 | 11439643 | NT | Homo sapiens hypothetical protein FLJ20535 (FLJ20535), mRNA |
| 10632 | 23686 | 37274 | 1.05 | 9.0E-79 | AF062346.1 | NT | Homo sapiens zinc finger protein 216 splice variant 1 (ZNF216), mRNA, complete cds |
| 10632 | 23686 | 37275 | 1.05 | 9.0E-79 | AF062346.1 | NT | Homo sapiens zinc finger protein 216 splice variant 1 (ZNF216), mRNA, complete cds |
| 11322 | 24385 | 38029 | 1.61 | 9.0E-79 | AY00873.1 | NT | Homo sapiens TRAF6-regulated IKK activator 1 beta Uev1A mRNA, complete cds |
| 11802 | 24782 | 38489 | 2.94 | 9.0E-79 | 11423927 | NT | Homo sapiens suppressor of white apricot homolog 2 (SWAP2), mRNA |
| 11802 | 24782 | 38489 | 2.94 | 9.0E-79 | 11423927 | NT | Homo sapiens suppressor of white apricot homolog 2 (SWAP2), mRNA |
| 13088 | 25711 | 31967 | 1.4 | 9.0E-79 | 11417877 | NT | Homo sapiens gamma-glutamyltransferase 1 (GGT1), mRNA |
| 3638 | 16996 | 29998 | 1.18 | 8.0E-79 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 3326 | 18498 | 29516 | 6.36 | 7.0E-79 | BE618648.1 | EST_HUMAN | 601472768T1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3875657 3' |
| 8844 | 21923 | | 0.62 | 6.0E-79 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 12169 | 25132 | | 5.44 | 6.0E-79 | AA699829.1 | EST_HUMAN | 2194604.s1 Soares_fetal_liver_spleen_1INFLS_S1 Homo sapiens cDNA clone IMAGE:462568 3' similar to |
| 11786 | 24778 | 38473 | 3.63 | 5.0E-79 | AL163282.2 | NT | TR-Q15408 Q15408 NEUTRAL PROTEASE LARGE SUBUNIT ; |
| 323 | 13637 | 26569 | 1.74 | 3.0E-79 | AF114488.1 | NT | Homo sapiens chromosome 21 segment HS21C092 |
| 1001 | 14172 | 27233 | 1.22 | 3.0E-79 | AF232708.1 | NT | Homo sapiens interscolin short isoform (ITSN), mRNA, complete cds |
| 3168 | 16343 | 29351 | 1.74 | 3.0E-79 | U08410.1 | NT | Homo sapiens cell-line tsA201 a chloride ion current inducer protein (Cln) gene, complete cds |
| 5477 | 18676 | 31689 | 7.05 | 3.0E-79 | AF110322.1 | NT | Human zinc finger protein ZNF131 mRNA, partial cds |
| 5841 | 19037 | 32337 | 1.69 | 3.0E-79 | AB020699.1 | NT | Homo sapiens MSTP016 (MST016) mRNA, complete cds |
| 5866 | 19056 | 32363 | 0.93 | 3.0E-79 | BE789470.1 | EST_HUMAN | Homo sapiens mRNA for KIAA0882 protein, partial cds |
| 5868 | 19056 | 32364 | 0.93 | 3.0E-79 | BE789470.1 | EST_HUMAN | 601482143F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3884554 5' |
| 5869 | 19077 | 32386 | 3.87 | 3.0E-79 | 11426770 | NT | 601482143F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3884554 5' |
| 5869 | 19077 | 32387 | 3.87 | 3.0E-79 | 11426770 | NT | Homo sapiens netrin 1 (NTN1), mRNA |
| 6884 | 20036 | 33445 | 0.84 | 3.0E-79 | BE256893.1 | EST_HUMAN | Homo sapiens netrin 1 (NTN1), mRNA |
| 7206 | 20071 | 33481 | 2.58 | 3.0E-79 | AB014620.1 | NT | 601112055F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3352885 5' |
| 7206 | 20071 | 33482 | 2.58 | 3.0E-79 | AB014620.1 | NT | Homo sapiens mRNA for KIAA0620 protein, partial cds |
| 8012 | 21062 | 34574 | 0.87 | 3.0E-79 | 6912455 | NT | Homo sapiens mRNA for KIAA0620 protein, partial cds |
| | | | | | | | Homo sapiens guanine nucleotide exchange factor for Rap1 (KIAA0277), mRNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8358 | 21439 | 34961 | 0.78 | 3.0E-79 | AF249273.1 | NT | Homo sapiens Bcl-2-associated transcription factor short form mRNA, complete cds |
| 8603 | 22558 | 38230 | 0.59 | 3.0E-79 | 10835036 | NT | Homo sapiens tetrairicopeptide repeat domain 3 (TTC3), mRNA |
| 10555 | 23390 | | 0.62 | 3.0E-79 | AV698115.1 | EST_HUMAN | Homo sapiens cDNA clone GKCAHE11.5' |
| 298 | 13515 | | 1.4 | 2.0E-79 | H63129.1 | EST_HUMAN | y4803.s1 Soares fetal liver spleen TNF.L3 Homo sapiens cDNA clone IMAGE:208541.3' |
| 651 | 13837 | 26864 | 1.05 | 2.0E-79 | BE379926.1 | EST_HUMAN | 601159419F2 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3511107.5' |
| 951 | 14124 | 27186 | 1.14 | 2.0E-79 | 4757841 | NT | Homo sapiens BCL2-like 2 (BCL2L2), mRNA |
| 1007 | 14178 | 27239 | 4.97 | 2.0E-79 | 4885234 | NT | Homo sapiens Gardner-Rasheed feline sarcoma viral (v-fgr) oncogene homolog (FGR) mRNA |
| 1007 | 14178 | 27240 | 4.97 | 2.0E-79 | 4885234 | NT | Homo sapiens Gardner-Rasheed feline sarcoma viral (v-fgr) oncogene homolog (FGR) mRNA |
| 1060 | 14226 | | 2.15 | 2.0E-79 | AI623747.1 | EST_HUMAN | Homo sapiens cDNA clone IMAGE:2118685.3' |
| 2215 | 15349 | 28478 | 6.17 | 2.0E-79 | 4585863 | NT | Homo sapiens phosphodiesterase 6A, cGMP-specific, rod, alpha (PDE6A), mRNA |
| 2216 | 15349 | 28479 | 6.17 | 2.0E-79 | 4585863 | NT | Homo sapiens phosphodiesterase 6A, cGMP-specific, rod, alpha (PDE6A), mRNA |
| 2286 | 15399 | 28527 | 1.35 | 2.0E-79 | AJ271408.1 | NT | Homo sapiens mRNA for KIAA0937 protein, partial cds |
| 2387 | 15516 | 28648 | 1.1 | 2.0E-79 | AF244138.1 | NT | Homo sapiens mRNA for KIAA0937 protein, partial cds |
| 2780 | 15896 | 29006 | 1.2 | 2.0E-79 | AB023154.1 | NT | Homo sapiens chloride channel CLC4 (CLC4), mRNA, complete cds |
| 4023 | 17179 | 30186 | 0.69 | 2.0E-79 | AF170492.1 | NT | Homo sapiens chloride channel CLC4 (CLC4), mRNA, complete cds |
| 4280 | 17425 | 30414 | 1.25 | 2.0E-79 | AJ271408.1 | NT | Homo sapiens mRNA for Fas-associated factor, FAF1 (Faf1 gene) |
| 4813 | 17946 | 30931 | 0.83 | 2.0E-79 | AL163208.2 | NT | Homo sapiens chromosome 21 segment HS21C008 |
| 6788 | 18980 | | 1.06 | 2.0E-79 | AA312223.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C008 |
| 5844 | 19034 | 32340 | 0.9 | 2.0E-79 | 11181769 | NT | EST182928 Jurkat T-cells VI Homo sapiens cDNA 5' end similar to C. elegans hypothetical protein, cosmid B0303.15 |
| 6373 | 19542 | 32901 | 1.19 | 2.0E-79 | AB020637.1 | NT | Homo sapiens X transporter protein 3 (XT3), mRNA |
| 7100 | 19527 | 31519 | 0.89 | 2.0E-79 | AF263613.1 | NT | Homo sapiens mRNA for KIAA0830 protein, partial cds |
| 7317 | 20399 | 33861 | 2.09 | 2.0E-79 | 7382479 | NT | Homo sapiens membrane-associated calcium-independent phospholipase A2 gamma mRNA, complete cds |
| 7317 | 20399 | 33862 | 2.09 | 2.0E-79 | 7382479 | NT | Homo sapiens Rho GTPase activating protein 6 (ARHGAP6), transcript variant 4, mRNA |
| 8292 | 21374 | 34894 | 1.1 | 2.0E-79 | 4506442 | NT | Homo sapiens Rho GTPase activating protein 6 (ARHGAP6), transcript variant 4, mRNA |
| 8714 | 21794 | 35331 | 2.13 | 2.0E-79 | 11427428 | NT | Homo sapiens retinoblastoma-like 1 (p107) (RBL1), mRNA |
| 8865 | 22044 | 35587 | 0.55 | 2.0E-79 | 8923248 | NT | Homo sapiens hypothetical protein FLJ11006 (FLJ11006), mRNA |
| 8865 | 22044 | 35588 | 0.55 | 2.0E-79 | 8923248 | NT | Homo sapiens hypothetical protein FLJ20275 (FLJ20275), mRNA |
| 9205 | 22283 | 35823 | 0.69 | 2.0E-79 | 11492184 | NT | Homo sapiens hypothetical protein FLJ20275 (FLJ20275), mRNA |
| 10297 | 23332 | 36935 | 1.98 | 2.0E-79 | S72869.1 | NT | Homo sapiens similar to A.TPase, H+ transporting, lysosomal (vacuolar proton pump) membrane sector associated protein M8-9 (H. sapiens) (LOC63961), mRNA |
| 10297 | 23332 | 36936 | 1.98 | 2.0E-79 | S72869.1 | NT | H4(D10S1170)=putative cytoskeletal protein [human, thyroid, mRNA, 3011 nt] |
| 11284 | 24360 | 37987 | 2.94 | 2.0E-79 | BE044386.1 | EST_HUMAN | H4(D10S1170)=putative cytoskeletal protein [human, thyroid, mRNA, 3011 nt] |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 11284 | 24350 | 37988 | 2.94 | 2.0E-79 | BE064386.1 | EST_HUMAN | RC4-BT0310-110300-016-f10 BT0310 Homo sapiens cDNA |
| 12208 | 18498 | 31634 | 4.27 | 2.0E-78 | 7692357 | NT | Homo sapiens KIAA0879 protein (KIAA0879), mRNA |
| 12298 | 25219 | 32100 | 2.3 | 2.0E-78 | AB020640.1 | NT | Homo sapiens mRNA for KIAA0833 protein, partial cds |
| 12531 | 25392 | 32067 | 3.08 | 2.0E-78 | 11418322 | NT | Homo sapiens cadherin EGF LAG seven-pass G-type receptor 1 (CERSR1), mRNA |
| 6718 | 26830 | | 3.28 | 1.0E-79 | BF363071.1 | EST_HUMAN | MRO-NN0087-280600-017-f10 NN0087 Homo sapiens cDNA |
| 6833 | 19986 | 33384 | 0.65 | 1.0E-79 | AI613480.1 | EST_HUMAN | h37608.x1 NCI_CGAP_U12 Homo sapiens cDNA clone IMAGE:2281286 3' similar to TR:Q26623 Q26623 |
| 6833 | 19986 | 33384 | 0.65 | 1.0E-79 | AI613480.1 | EST_HUMAN | TEKTN C1.1 |
| 8439 | 21520 | 35049 | 0.9 | 1.0E-79 | BE394211.1 | EST_HUMAN | TEKTN C1.1 |
| 11922 | 24908 | 38609 | 1.9 | 1.0E-79 | BF087405.1 | EST_HUMAN | 601311517F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3632809 5' |
| 12323 | 26107 | 29389 | 1.44 | 1.0E-79 | AI460115.1 | EST_HUMAN | QV2-PT0540-120900-358-a05 HT0940 Homo sapiens cDNA |
| 3215 | 16389 | 29400 | 6.95 | 9.0E-80 | AA725948.1 | EST_HUMAN | ar79a04.x1 Barstead colon HPLR87 Homo sapiens cDNA clone IMAGE:2151438 3' |
| 3215 | 16389 | 29400 | 6.95 | 9.0E-80 | AA725948.1 | EST_HUMAN | al23a05.s1 Soares_testis_NHT Homo sapiens cDNA clone 1343948 3' |
| 10217 | 23253 | 36842 | 1.3 | 9.0E-80 | BE788603.1 | EST_HUMAN | al23a05.s1 Soares_testis_NHT Homo sapiens cDNA clone 1343948 3' |
| 11554 | 24609 | 38288 | 7.83 | 9.0E-80 | 11433924 | NT | al23a05.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:3936081 5' |
| 11554 | 24609 | 38288 | 7.83 | 9.0E-80 | 11433924 | NT | al23a05.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:3936081 5' |
| 3691 | 18853 | | 1.01 | 8.0E-80 | U94387.1 | NT | 601581652F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2103459 3' similar to SW:NUEM_HUMAN |
| 7780 | 20836 | 34328 | 2.82 | 8.0E-80 | 11422847 | NT | Q16795 NADH-LIBUQUINONE OXIDOREDUCTASE 39 KD SUBUNIT PRECURSOR |
| 7780 | 20836 | 34328 | 2.82 | 8.0E-80 | 11422847 | NT | Q16795 NADH-LIBUQUINONE OXIDOREDUCTASE 39 KD SUBUNIT PRECURSOR |
| 8602 | 22857 | 36228 | 2.2 | 8.0E-80 | 6005921 | NT | Homo sapiens KIAA0724 gene product (KIAA0724), mRNA |
| 8602 | 22857 | 36228 | 2.2 | 8.0E-80 | 6005921 | NT | Homo sapiens KIAA0724 gene product (KIAA0724), mRNA |
| 7114 | 18540 | 31497 | 0.61 | 7.0E-80 | AF127982.1 | NT | Homo sapiens KIAA0724 gene product (KIAA0724), mRNA |
| 923 | 14099 | 27162 | 0.74 | 6.0E-80 | AI42197.1 | EST_HUMAN | Homo sapiens KIAA0724 gene product (KIAA0724), mRNA |
| 1675 | 14827 | 27910 | 2.41 | 6.0E-80 | U64938.1 | NT | Homo sapiens KIAA0724 gene product (KIAA0724), mRNA |
| 2372 | 15503 | 28628 | 1.14 | 6.0E-80 | 6851094 | NT | Homo sapiens KIAA0724 gene product (KIAA0724), mRNA |
| 2372 | 15503 | 28628 | 1.14 | 6.0E-80 | 6851094 | NT | Homo sapiens KIAA0724 gene product (KIAA0724), mRNA |
| 5922 | 19109 | 32422 | 1.46 | 6.0E-80 | AI404488.1 | NT | Homo sapiens KIAA0724 gene product (KIAA0724), mRNA |
| 6200 | 19375 | 32726 | 3.35 | 6.0E-80 | AI404488.1 | NT | Homo sapiens KIAA0724 gene product (KIAA0724), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 6368 | 19528 | 32886 | 4.07 | 6.0E-80 | 11436736 | NT | Homo sapiens tubby like protein 3 (TULP3), mRNA |
| 6402 | 19571 | | 1.08 | 6.0E-80 | 7652393 | NT | Homo sapiens KIAA0941 protein (KIAA0941), mRNA |
| 6452 | 19619 | 32882 | 0.82 | 6.0E-80 | M18533.1 | NT | Homo sapiens dystrophin (DMD) mRNA, complete cds |
| 6024 | 22103 | 35643 | 3.4 | 6.0E-80 | 11528464 | NT | Homo sapiens G protein-coupled receptor 51 (GPR51), mRNA |
| 9024 | 22103 | 35644 | 3.4 | 6.0E-80 | 11528464 | NT | Homo sapiens G protein-coupled receptor 51 (GPR51), mRNA |
| 9221 | 22259 | 36842 | 1.57 | 6.0E-80 | AL163301.2 | NT | Homo sapiens chromosome 21 segment HS21C101 |
| 9559 | 22624 | 36198 | 0.65 | 6.0E-80 | AF161495.1 | NT | Homo sapiens HSPC146 mRNA, complete cds |
| 10065 | 23103 | 38706 | 1.93 | 6.0E-80 | U20211.1 | NT | Human cone photoreceptor GMP-phosphodiesterase alpha subunit gene, exon 21 |
| 11183 | 24252 | 37887 | 2 | 6.0E-80 | 11427366 | NT | Homo sapiens brefeldin A-inhibited guanine nucleotide-exchange protein 1 (BIG1), mRNA |
| 11468 | 24566 | 38231 | 20.96 | 6.0E-80 | AF226730.1 | NT | Homo sapiens Cy19 mRNA, complete cds |
| 12053 | 25034 | 38740 | 1.48 | 6.0E-80 | AF102295.1 | NT | Homo sapiens N-acetylglucosamine-phosphate mutase mRNA, complete cds |
| 12176 | 14098 | 27162 | 1.75 | 6.0E-80 | AI422197.1 | EST_HUMAN | 168d02.x1 NCL_CGAP_Bm23 Homo sapiens cDNA clone IMAGE:2103459 3' similar to SW:NUEM_HUMAN Q18795 NADH-UBIQUINONE OXIDOREDUCTASE 39 KD SUBUNIT PRECURSOR ; Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 12309 | 25972 | | 2 | 6.0E-80 | AF240786.1 | NT | Homo sapiens CST gene for ceratoid sulfotransferase, exon 1, 2, 3, 4, 5 |
| 12612 | 25351 | | 3.32 | 6.0E-80 | AB029500.1 | NT | Homo sapiens mRNA for sodium-glucose cotransporter (SGLT2 gene) |
| 13081 | 26115 | | 2.69 | 6.0E-80 | AJ133127.1 | NT | Homo sapiens proteasome (prosome, macropain) 26S subunit, non-ATPase, 3 (PSMD3) mRNA |
| 601 | 13790 | 26811 | 1.7 | 6.0E-80 | 4506228 | NT | Homo sapiens serine-threonine protein kinase (MNBIH) mRNA, complete cds |
| 858 | 14035 | 27097 | 1.89 | 5.0E-80 | AF108830.1 | NT | Homo sapiens serine-threonine protein kinase (MNBIH) mRNA, complete cds |
| 858 | 14035 | 27098 | 1.89 | 5.0E-80 | AF108830.1 | NT | Homo sapiens serine-threonine protein kinase (MNBIH) mRNA, complete cds |
| 1216 | 14377 | | 1.49 | 6.0E-80 | X91647.1 | NT | H. sapiens nox1 gene (exon 12) |
| 1485 | 14938 | | 2.89 | 5.0E-80 | AL163283.2 | NT | Homo sapiens chromosome 21 segment HS21C083 |
| 2601 | 15528 | 28748 | 3.51 | 5.0E-80 | AB037855.1 | NT | Homo sapiens mRNA for KIAA1434 protein, partial cds |
| 2855 | 15969 | 29078 | 1.78 | 5.0E-80 | AB019038.1 | NT | Homo sapiens H3 histone family, member J (H3FJ) mRNA |
| 4160 | 17302 | 30295 | 0.9 | 5.0E-80 | AB019038.1 | NT | Homo sapiens HMT-1 mRNA for beta-1,4 mannosyltransferase, complete cds |
| 4160 | 17302 | 30296 | 0.9 | 5.0E-80 | AB019038.1 | NT | Homo sapiens HMT-1 mRNA for beta-1,4 mannosyltransferase, complete cds |
| 5066 | 18166 | 31170 | 1.23 | 5.0E-80 | AL163283.2 | NT | Homo sapiens chromosome 21 segment HS21C068 |
| 8552 | 21633 | 35170 | 1.28 | 5.0E-80 | 9910283 | NT | Mus musculus keratin complex 2, gene 6g (Krt2-6g), mRNA |
| 9458 | 22574 | 36140 | 5.03 | 4.0E-80 | F25615.1 | EST_HUMAN | HSPD13155 HM3 Homo sapiens cDNA clone e4000045F03 |
| 223 | 13445 | | 6.03 | 3.0E-80 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 6028 | 18167 | | 2.3 | 3.0E-80 | BE817485.1 | EST_HUMAN | QV4-BN0263-040600-241-g10 BN0263 Homo sapiens cDNA 0a23a12.x1 Soares NSF_FB_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:1667084 3' similar to TR:O35790 O35790 P1G-L ; |
| 5941 | 18127 | 32440 | 1.78 | 3.0E-80 | AI091875.1 | EST_HUMAN | |

Page 388 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 1841 | 14987 | 28087 | 4.85 | 2.0E-80 | R35321.1 | EST_HUMAN | y95d08.r1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:38080 5' |
| 1908 | 15051 | 28163 | 1.57 | 2.0E-80 | A1444821.1 | EST_HUMAN | RET4B7 subcloned retina cDNA library Homo sapiens cDNA clone RET4B7 |
| 2116 | 15253 | 28372 | 7.03 | 2.0E-80 | AL043116.2 | EST_HUMAN | DKFZp434D1323_r1_434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434D1323 5' |
| 6944 | 20257 | 33696 | 0.95 | 2.0E-80 | AA582952.1 | EST_HUMAN | nm80401.s1 NCI_CGAP_Oc9 Homo sapiens cDNA clone IMAGE:1090177 3' |
| 7053 | 20106 | 33522 | 1.89 | 2.0E-80 | 11421930 | NT | Homo sapiens Golgi transport complex protein (90 kDa) (GTC90), mRNA |
| 7401 | 20479 | 33947 | 0.89 | 2.0E-80 | T75215.1 | EST_HUMAN | wc86f12.r1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:22851 5' similar to SP-K1CR_XENLA_P08802 KERATIN, TYPE I CYTOSKELETAL ENDO B; |
| 9360 | 22435 | 35994 | 1.21 | 2.0E-80 | AW964270.1 | EST_HUMAN | EST376343 IMAGE resequencing, MAGH Homo sapiens cDNA |
| 9570 | 23009 | 36603 | 0.99 | 2.0E-80 | AJ007378.1 | NT | Homo sapiens GGT gene, exon 6 |
| 11109 | 24181 | 37815 | 8.84 | 2.0E-80 | AA393362.1 | EST_HUMAN | x70f12.r1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:727727 5' similar to TR:G181315 |
| 350 | 13561 | | 1.62 | 1.0E-80 | AL163303.2 | NT | G191315 ANDROGEN-DEPENDENT EXPRESSED PROTEIN ; |
| 822 | 14001 | 27055 | 1.3 | 1.0E-80 | AF231920.1 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 2009 | 15149 | | 2.42 | 1.0E-80 | A1732656.1 | EST_HUMAN | Homo sapiens chromosome 21 unknown mRNA |
| 4553 | 17720 | 30703 | 0.95 | 1.0E-80 | AF077188.1 | NT | repetitive element ; |
| 5343 | 18456 | | 3.32 | 1.0E-80 | Y13932.1 | NT | Homo sapiens cullin 4A (CUL4A) mRNA, complete cds |
| 5442 | 18642 | | 6.25 | 1.0E-80 | BE386615.1 | EST_HUMAN | Homo sapiens PRKY exon 7 |
| 6093 | 19274 | 32603 | 6.12 | 1.0E-80 | L10347.1 | NT | 601274906F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3615433 5' |
| 6627 | 19787 | 33176 | 1.17 | 1.0E-80 | 5174540 | NT | Human pro-alpha1 type II collagen (COL2A1) gene exons 1-54, complete cds |
| 7356 | 20435 | 33897 | 1.18 | 1.0E-80 | AJ224172.1 | NT | Homo sapiens male dehydrogenase 2, NAD (mitochondrial) (MDH2), nuclear gene encoding mitochondrial protein, mRNA |
| 7747 | 20807 | 34296 | 8.03 | 1.0E-80 | A1948731.1 | EST_HUMAN | Homo sapiens mRNA for lipophilin B |
| 7747 | 20807 | 34297 | 8.03 | 1.0E-80 | A1948731.1 | EST_HUMAN | wq25c05.x1 NCI_CGAP_Kd11 Homo sapiens cDNA clone IMAGE:2472286 3' |
| 8426 | 21507 | 35039 | 0.67 | 1.0E-80 | 11421211 | NT | wq25c05.x1 NCI_CGAP_Kd11 Homo sapiens cDNA clone IMAGE:2472286 3' |
| 8897 | 21976 | 35514 | 0.76 | 1.0E-80 | 11421211 | NT | Homo sapiens protein tyrosine phosphatase, receptor type, A (PTPRA), mRNA |
| 8897 | 21976 | 35515 | 0.76 | 1.0E-80 | 11421211 | NT | Homo sapiens protein tyrosine phosphatase, receptor type, A (PTPRA), mRNA |
| 9485 | 22542 | 36104 | 1.17 | 1.0E-80 | AF245219.1 | NT | Homo sapiens protein tyrosine phosphatase, receptor type, A (PTPRA), mRNA |
| 9485 | 22542 | 36105 | 1.17 | 1.0E-80 | AF245219.1 | NT | Homo sapiens probable mannose binding C-type lectin DC-SIGNR mRNA, complete cds |
| 10540 | 23674 | 37294 | 0.7 | 1.0E-80 | D63479.2 | NT | Homo sapiens probable mannose binding C-type lectin DC-SIGNR mRNA, complete cds |
| 10887 | 23971 | 37601 | 4.9 | 1.0E-80 | 11641276 | NT | Homo sapiens mRNA for KIAA0145 protein, partial cds |
| 10887 | 23971 | 37602 | 4.9 | 1.0E-80 | 11641276 | NT | Homo sapiens similar to rat myomesalin (LOC64182), mRNA |
| 12593 | 25399 | 32042 | 1.32 | 1.0E-80 | 11417801 | NT | Homo sapiens manningoma (disrupted in balanced translocation) 1 (MN1), mRNA |
| 12862 | 25573 | | 1.28 | 1.0E-80 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |

Page 389 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 10923 | 24006 | 37640 | 1.93 | 8.0E-81 | AI251752.1 | EST_HUMAN | qh60g05.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1854298 3' |
| 10923 | 24006 | 37641 | 1.93 | 8.0E-81 | AI251752.1 | EST_HUMAN | qh60g05.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1854298 3' |
| 11422 | 24483 | 38147 | 5.99 | 8.0E-81 | BE394525.1 | EST_HUMAN | 601310531F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3032070 5' |
| | | | | | | | z621d10.r1 Soares_fetal_liver_NbH19W Homo sapiens cDNA clone IMAGE:359635 5' similar to SW:KRHA_RABIT_Q02857 KERATIN, GLYCINE/TYROSINE-RICH OF HAIR, [1] contains element MER22 repetitive element: |
| 2280 | 16412 | 28543 | 0.94 | 7.0E-81 | AA011080.1 | EST_HUMAN | z691c08.x5 Soares_fetal_liver_NbH19W Homo sapiens cDNA clone IMAGE:289918 3' |
| 7402 | 20480 | 33948 | 3.69 | 7.0E-81 | AI822115.1 | EST_HUMAN | z691c08.x5 Soares_fetal_liver_NbH19W Homo sapiens cDNA clone IMAGE:3352840 5' |
| 4506 | 17845 | 30632 | 3.73 | 6.0E-81 | BE256829.1 | EST_HUMAN | 601111970F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3352840 5' |
| 4506 | 17845 | 30633 | 3.73 | 6.0E-81 | BE256829.1 | EST_HUMAN | 601111970F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3352840 5' |
| 5397 | 18599 | 31569 | 2.28 | 6.0E-81 | 4601848 | NT | Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 3 (ABCA3), mRNA |
| 5397 | 18599 | 31570 | 2.28 | 6.0E-81 | 4601848 | NT | Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 3 (ABCA3), mRNA |
| 9437 | 22611 | 36076 | 1.24 | 6.0E-81 | AA360017.1 | EST_HUMAN | EST169128 Fetal lung II Homo sapiens cDNA 5' end |
| 12747 | 25485 | 32030 | 3.38 | 6.0E-81 | BF679022.1 | EST_HUMAN | 602153666F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4294601 5' |
| 12747 | 25485 | 32031 | 3.38 | 6.0E-81 | BF679022.1 | EST_HUMAN | 602153666F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4294601 5' |
| 2291 | 15423 | 26557 | 2.98 | 5.0E-81 | BE268042.1 | EST_HUMAN | 601125505F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3345480 5' |
| 8607 | 21688 | 35226 | 3.06 | 5.0E-81 | AB007923.1 | NT | Homo sapiens mRNA for KIAA0454 protein, partial cds |
| 8607 | 21688 | 35227 | 3.06 | 5.0E-81 | AB007923.1 | NT | Homo sapiens mRNA for KIAA0454 protein, partial cds |
| 9848 | 22888 | 36467 | 1.25 | 5.0E-81 | M60316.1 | NT | Human transforming growth factor-beta (tgf-beta) mRNA, complete cds |
| 9848 | 22888 | 36468 | 1.25 | 5.0E-81 | M60316.1 | NT | Human transforming growth factor-beta (tgf-beta) mRNA, complete cds |
| 11883 | 24871 | 38568 | 1.76 | 6.0E-81 | 6506834 | NT | Homo sapiens hypothetical protein (FLJ11045), mRNA |
| | | | | | | | tf60a12.x1 NCL_CGAP_O123 Homo sapiens cDNA clone IMAGE:2122702 3' similar to TR:Q85560 Q85560 |
| 720 | 13502 | 26943 | 0.84 | 4.0E-81 | AI521435.1 | EST_HUMAN | hn86a02.x1 NCL_CGAP_Cot14 Homo sapiens cDNA clone IMAGE:3035607 3' similar to SW:COGP_BOVIN |
| 1867 | 15013 | 28121 | 1.64 | 4.0E-81 | AW779812.1 | EST_HUMAN | P53820 COATOMER GAMMA SUBUNIT |
| 3239 | 18413 | 29428 | 3.91 | 4.0E-81 | AB037766.1 | NT | Homo sapiens mRNA for KIAA1345 protein, partial cds |
| 3718 | 18879 | 29884 | 0.89 | 4.0E-81 | AW004608.1 | EST_HUMAN | ws90h03.x1 NCL_CGAP_Co3 Homo sapiens cDNA clone IMAGE:2505269 3' similar to TR:O43815 O43815 |
| 4276 | 17421 | 30408 | 2.94 | 4.0E-81 | AF263306.1 | NT | STRIATIN |
| 4276 | 17421 | 30409 | 2.94 | 4.0E-81 | AF263306.1 | NT | Homo sapiens rab3 interacting protein variant 2 mRNA, partial cds |
| | | | | | | | Homo sapiens rab3 interacting protein variant 2 mRNA, partial cds |
| 7427 | 20504 | 33974 | 0.91 | 4.0E-81 | 4757893 | NT | Homo sapiens calcium channel, voltage-dependent, L type, alpha 2/delta subunit (CACNA2) mRNA |
| 7559 | 20631 | 34108 | 0.59 | 4.0E-81 | 11420544 | NT | Homo sapiens ets variant gene 1 (ETV1), mRNA |
| 8482 | 21563 | 35098 | 2.36 | 4.0E-81 | X06989.1 | NT | Human mRNA for amyloid A4(751) protein |
| 8742 | 21821 | 35355 | 2.2 | 4.0E-81 | U20197.1 | NT | Human cone photoreceptor cGMP-phosphodiesterase alpha subunit gene, exons 2 and 3 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8742 | 21821 | 35356 | 2.2 | 4.0E-81 | U20187.1 | NT | Human cone photoreceptor cGMP-phosphodiesterase alpha' subunit gene, exons 2 and 3 |
| 9427 | 22501 | 36087 | 3.36 | 4.0E-81 | AB018001.1 | NT | Homo sapiens mRNA for Death-associated protein kinase 2, complete cds |
| 10306 | 23341 | 36940 | 1.4 | 4.0E-81 | 11425281 | NT | Homo sapiens ligase I, DNA, ATP-dependent (LIG1), mRNA |
| 10374 | 23409 | 37018 | 0.65 | 4.0E-81 | 11430065 | NT | Homo sapiens acyl-Coenzyme A dehydrogenase family, member 8 (ACAD8), mRNA |
| 10374 | 23409 | 37018 | 0.65 | 4.0E-81 | 11430065 | NT | Homo sapiens acyl-Coenzyme A dehydrogenase family, member 8 (ACAD8), mRNA |
| 11461 | 24520 | 38189 | 4.74 | 4.0E-81 | 4758085 | NT | Homo sapiens vesicle trafficking protein sec22b (SEC22B), mRNA |
| 11461 | 24520 | 38189 | 4.74 | 4.0E-81 | 4758085 | NT | Homo sapiens vesicle trafficking protein sec22b (SEC22B), mRNA |
| 12200 | 26039 | 31682 | 8.38 | 4.0E-81 | 11417862 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 12200 | 26039 | 31682 | 8.38 | 4.0E-81 | 11417862 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 12706 | 25932 | 32009 | 1.63 | 4.0E-81 | 11417871 | NT | Homo sapiens beta-ureidopropionase (LOC51733), mRNA |
| 12706 | 25932 | 32010 | 1.63 | 4.0E-81 | 11417871 | NT | Homo sapiens beta-ureidopropionase (LOC51733), mRNA |
| 12956 | 25823 | 31978 | 4.21 | 4.0E-81 | 11417974 | NT | Homo sapiens transcobalamin II; macrocytic anemia (TCN2), mRNA |
| 1296 | 14452 | 27517 | 9.06 | 3.0E-81 | Y18000.1 | NT | Homo sapiens NF2 gene |
| 1296 | 14452 | 27517 | 9.06 | 3.0E-81 | Y18000.1 | NT | Homo sapiens NF2 gene |
| 2444 | 15572 | 28701 | 1.72 | 3.0E-81 | AF077188.1 | NT | Homo sapiens caullin 4A (CUL4A), mRNA, complete cds |
| 3055 | 16231 | 29250 | 6.11 | 3.0E-81 | 4506280 | NT | Homo sapiens pleiotrophin (heparin binding growth factor 8, neurite growth-promoting factor 1) (PTN), mRNA |
| 3055 | 16231 | 29251 | 6.11 | 3.0E-81 | 4506280 | NT | Homo sapiens pleiotrophin (heparin binding growth factor 8, neurite growth-promoting factor 1) (PTN), mRNA |
| 2894 | 16073 | 29080 | 2.29 | 2.0E-81 | BE784636.1 | EST_HUMAN | 601474072F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3877121 5' |
| 2894 | 16073 | 29081 | 2.29 | 2.0E-81 | BE784636.1 | EST_HUMAN | 601474072F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3877121 5' |
| 3873 | 17032 | 30031 | 0.8 | 2.0E-81 | AW611542.1 | EST_HUMAN | Hg85c01.x1 NCL CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2952384 3' |
| 8144 | 21226 | 34749 | 0.69 | 2.0E-81 | 8923839 | NT | Homo sapiens hypothetical protein (LOC55586), mRNA |
| 13129 | 17032 | 30031 | 5.68 | 2.0E-81 | AW611542.1 | EST_HUMAN | Hg85c01.x1 NCL CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2952384 3' |
| 4638 | 17774 | 30754 | 2.86 | 1.0E-81 | AA040370.1 | EST_HUMAN | 2k46f09.r1 Soares_pregnant_uterus_NbhPU Homo sapiens cDNA clone IMAGE:495825 5' similar to PIR:S52437 S52437 CDP-diacylglycerol synthase - fruit fly |
| 4768 | 17903 | 30885 | 9.54 | 1.0E-81 | BE047988.1 | EST_HUMAN | tz45c04.y1 NCL CGAP_Bn52 Homo sapiens cDNA clone IMAGE:2287528 5' |
| 5241 | 18363 | 31331 | 0.6 | 1.0E-81 | 9968844 | NT | Homo sapiens chromosoma 12 open reading frame 3 (C12ORF3), mRNA |
| 5351 | 18479 | 38821 | 6.18 | 1.0E-81 | U67828.1 | NT | Human econitrate hydratase (ACO2) gene, exon 3 |
| 5469 | 18639 | 31648 | 3.8 | 1.0E-81 | 11432966 | NT | Homo sapiens polymerase (DNA directed), gamma (POLG), mRNA |
| 5469 | 18639 | 31649 | 3.8 | 1.0E-81 | 11432966 | NT | Homo sapiens polymerase (DNA directed), gamma (POLG), mRNA |
| 5619 | 18813 | 31881 | 0.79 | 1.0E-81 | AA255569.1 | EST_HUMAN | z65d06.r1 Soares_NbhMPu_S1 Homo sapiens cDNA clone IMAGE:682475 5' similar to SW:PR12_HUMAN |
| 5771 | 18883 | 32284 | 3.18 | 1.0E-81 | U52351.1 | NT | P49843 DNA PRIMASE 58 KD SUBUNIT ; Homo sapiens arm-repeat protein NPRAP/neurojulin (CTNND2), mRNA, partial cds |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 5771 | 18963 | 32265 | 3.18 | 1.0E-81 | U52351.1 | NT | Homo sapiens arm-r repeat protein NPRAP/neurexlin (CTNND2) mRNA, partial cds |
| 6274 | 19448 | 32797 | 1.81 | 1.0E-81 | BF674641.1 | EST_HUMAN | 602137984F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4274536 5' |
| 6877 | 20029 | 33439 | 1.09 | 1.0E-81 | AJ133269.1 | NT | Homo sapiens caveolin-1/2 locus, Contig1, DYS622, genes CAV2 (exons 1, 2a and 2b), CAV1 (exons 1 and 2) |
| 7849 | 20899 | 34509 | 7.94 | 1.0E-81 | 11432868 | NT | Homo sapiens polymerase (DNA directed), gamma (POLG), mRNA |
| 7972 | 21022 | 34635 | 0.61 | 1.0E-81 | AJ250408.1 | NT | Homo sapiens GLI3 gene for GLI3 protein |
| 8978 | 23017 | 36610 | 0.89 | 1.0E-81 | BE958278.1 | EST_HUMAN | 601845051F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:3930228 5' |
| 9878 | 23017 | 36611 | 0.89 | 1.0E-81 | BE958278.1 | EST_HUMAN | 601845051F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:3930228 5' |
| 10174 | 23211 | 36804 | 5.13 | 1.0E-81 | BE564367.1 | EST_HUMAN | 601343180F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3685483 5' |
| | | | | | | | 6014408 a1 Stratagene HeLa cell s3 937216 Homo sapiens cDNA clone IMAGE:856427 3' similar to SW:YB36_YEAST P38126 HYPOTHETICAL 60.5 KD PROTEIN IN RPS101-RPS13 INTERGENIC REGION.1 |
| 10308 | 23343 | 36948 | 0.81 | 1.0E-81 | AA830794.1 | EST_HUMAN | Homo sapiens golgin-like protein (GLP), mRNA |
| 10310 | 23345 | 36950 | 3.72 | 1.0E-81 | BE744545.1 | EST_HUMAN | MRQ-CT0006-260599-019 CT0006 Homo sapiens cDNA |
| 10310 | 23345 | 36951 | 3.72 | 1.0E-81 | BE744545.1 | EST_HUMAN | MRQ-CT0006-260599-019 CT0006 Homo sapiens cDNA |
| 10726 | 23769 | 37367 | 1.41 | 1.0E-81 | AW897550.1 | EST_HUMAN | RC3-UM00048-290200-011-a06 UM0048 Homo sapiens cDNA |
| 10894 | 23898 | 37619 | 0.49 | 1.0E-81 | AW260322.1 | EST_HUMAN | RC3-UM00048-290200-011-a06 UM0048 Homo sapiens cDNA |
| 11182 | 24261 | 37986 | 1.97 | 1.0E-81 | 8923698 | NT | RC3-UM00048-290200-011-a06 UM0048 Homo sapiens cDNA |
| 11347 | 24409 | 38061 | 1.56 | 1.0E-81 | AW844986.1 | EST_HUMAN | RC3-UM00048-290200-011-a06 UM0048 Homo sapiens cDNA |
| 11347 | 24409 | 38062 | 1.56 | 1.0E-81 | AW844986.1 | EST_HUMAN | RC3-UM00048-290200-011-a06 UM0048 Homo sapiens cDNA |
| 11352 | 24414 | 38068 | 2.93 | 1.0E-81 | AW798167.1 | EST_HUMAN | RC3-UM00048-290200-011-a06 UM0048 Homo sapiens cDNA |
| 11352 | 24414 | 38068 | 2.93 | 1.0E-81 | AW798167.1 | EST_HUMAN | RC3-UM00048-290200-011-a06 UM0048 Homo sapiens cDNA |
| 11550 | 18490 | 31529 | 2.46 | 1.0E-81 | AW960598.1 | EST_HUMAN | EST372729 MAGC resequences, MAGF Homo sapiens cDNA |
| 11812 | 24802 | 38501 | 1.88 | 1.0E-81 | BF204263.1 | EST_HUMAN | EST372729 MAGC resequences, MAGF Homo sapiens cDNA |
| 12417 | 25295 | 32085 | 3.6 | 1.0E-81 | 11418138 | NT | Homo sapiens photobol (similar to apolipoprotein B mRNA editing protein) (DUT42C19.2), mRNA |
| 13 | 13251 | 26251 | 1.59 | 8.0E-82 | AF161406.1 | NT | Homo sapiens HSPC288 mRNA, partial cds |
| 109 | 13261 | 26251 | 1.35 | 8.0E-82 | AF161406.1 | NT | Homo sapiens HSPC288 mRNA, partial cds |
| 274 | 13492 | 26623 | 1.58 | 8.0E-82 | U09888.1 | NT | Human CRFB4 gene, partial cds |
| 837 | 14015 | 27070 | 1.87 | 8.0E-82 | U09888.1 | NT | Human CRFB4 gene, partial cds |
| 910 | 14085 | 27150 | 1.84 | 8.0E-82 | U09888.1 | NT | Human CRFB4 gene, partial cds |
| 1520 | 14673 | 27755 | 2.24 | 8.0E-82 | AB037748.1 | NT | Homo sapiens glutathione peroxidase 5 (epididymal androgen-related protein) (GPX5), transcript variant 2, mRNA |
| 1090 | 14842 | 27927 | 1.39 | 8.0E-82 | 6715601 | NT | Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA |
| 4198 | 17348 | 30339 | 0.74 | 8.0E-82 | 4504116 | NT | Homo sapiens hypothetical protein FLJ20461 (FLJ20461), mRNA |
| 4358 | 17501 | 30483 | 0.83 | 8.0E-82 | 8923432 | NT | Homo sapiens hypothetical protein FLJ20461 (FLJ20461), mRNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 1481 | 14834 | | 1.18 | 7.0E-82 | BF035327.1 | EST_HUMAN | 601458531F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3862086 5' |
| 2825 | 15839 | 28049 | 1.62 | 7.0E-82 | AU144050.1 | EST_HUMAN | AU144050 HEMBA1 Homo sapiens cDNA clone HEMBA1000762 3' |
| 1706 | 14857 | 27844 | 22.54 | 4.0E-82 | AF081484.1 | NT | Homo sapiens alpha-tubulin isoform 1 mRNA, complete cds |
| 5813 | 18507 | 31874 | 0.87 | 4.0E-82 | BF351681.1 | EST_HUMAN | QV2-HT0540-120900-362-08 HT0540 Homo sapiens cDNA |
| 5813 | 18507 | 31875 | 0.87 | 4.0E-82 | BF351681.1 | EST_HUMAN | QV2-HT0540-120900-362-08 HT0540 Homo sapiens cDNA |
| 5876 | 18068 | 32374 | 1.1 | 4.0E-82 | M25833.1 | NT | Human von Willebrand factor gene, exon 9 |
| 12016 | 25000 | 38702 | 4.71 | 4.0E-82 | AI937300.1 | EST_HUMAN | wp75609.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2467624 3' similar to TR:076276 |
| 12883 | 25455 | | 3.78 | 4.0E-82 | AF028701.2 | NT | O75276 PKD1 ; Homo sapiens presenilin-1 gene, exons 1 and 2 |
| 288 | 13508 | 28540 | 15.3 | 3.0E-82 | 4502168 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 721 | 13903 | 28944 | 2.5 | 3.0E-82 | BE005705.1 | EST_HUMAN | RC2-BN0120-010400-013-02 BN0120 Homo sapiens cDNA |
| 810 | 13989 | 27043 | 8.44 | 3.0E-82 | 6174702 | NT | Homo sapiens transforming growth factor beta-activated kinase-binding protein 1 (TAB1), mRNA |
| 893 | 14069 | 27134 | 5.31 | 3.0E-82 | 4502168 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 1086 | 14252 | | 15.73 | 3.0E-82 | AA725848.1 | EST_HUMAN | al23605.61 Scaros_testis_NHT Homo sapiens cDNA clone 1343648 3' |
| 1388 | 14641 | 27617 | 1.22 | 3.0E-82 | AW675073.1 | EST_HUMAN | RC6-PT0001-190100-021-502 PT0001 Homo sapiens cDNA |
| 1494 | 14647 | 27729 | 5.59 | 3.0E-82 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 1960 | 16093 | 28184 | 2.14 | 3.0E-82 | BE813232.1 | EST_HUMAN | RC1-BN0005-280700-018-g04 BN0005 Homo sapiens cDNA |
| 2002 | 15202 | 28318 | 1.11 | 3.0E-82 | 4501922 | NT | Homo sapiens adenylate cyclase activating polypeptide 1 (pituitary) receptor type 1 (ADCYAP1R1) mRNA |
| 3345 | 16518 | | 2.42 | 3.0E-82 | 5453811 | NT | Homo sapiens neurotrophic tyrosine kinase, receptor, type 2 (NTRK2) mRNA |
| 8346 | 21427 | 34952 | 2.66 | 3.0E-82 | 11425206 | NT | Homo sapiens ankyrin-like with transmembrane domain 1 (ANKTM1), mRNA |
| 8753 | 21832 | 35371 | 0.89 | 3.0E-82 | 11432889 | NT | Homo sapiens contactin 6 (CNTN6), mRNA |
| 8753 | 21832 | 35372 | 0.89 | 3.0E-82 | 11432889 | NT | Homo sapiens contactin 6 (CNTN6), mRNA |
| 10029 | 23087 | 36865 | 4.01 | 3.0E-82 | AB028900.1 | NT | Homo sapiens mRNA for KIAA1077 protein, partial cds |
| 10029 | 23087 | 36866 | 4.01 | 3.0E-82 | AB028900.1 | NT | Homo sapiens mRNA for KIAA1077 protein, partial cds |
| 610 | 13789 | 28818 | 2.49 | 2.0E-82 | AB023216.1 | NT | Homo sapiens mRNA for KIAA0989 protein, partial cds |
| 610 | 13789 | 28819 | 2.49 | 2.0E-82 | AB023216.1 | NT | Homo sapiens mRNA for KIAA0989 protein, partial cds |
| 1720 | 14870 | 27862 | 2.23 | 2.0E-82 | AL046390.1 | EST_HUMAN | DKFZp434M117_1 434 (synonym: hsc3) Homo sapiens cDNA clone DKFZp434M117 5' |
| 3949 | 17107 | 30104 | 0.93 | 2.0E-82 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 4131 | 17284 | 30279 | 0.88 | 2.0E-82 | U78833.1 | NT | Human integral membrane serine protease Sepsase mRNA, complete cds |
| 4348 | 17491 | 30473 | 0.9 | 2.0E-82 | 4504116 | NT | Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA |
| 4680 | 17815 | 30803 | 1.52 | 2.0E-82 | AB029019.1 | NT | Homo sapiens mRNA for KIAA1086 protein, partial cds |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 4680 | 17815 | 30804 | 1.62 | 2.0E-82 | AB028019.1 | NT | Homo sapiens mRNA for KIAA1098 protein, partial cds |
| 4692 | 18121 | 31100 | 2.86 | 2.0E-82 | AF045555.1 | NT | Homo sapiens wbscr1 (WBSR1) and wbscr5 (WBSR5) genes, complete cds, alternatively spliced and replication factor C subunit 2 (RFC2) gene, complete cds |
| 5191 | 18313 | 31280 | 1.56 | 2.0E-82 | 4507580 | NT | Homo sapiens tumor necrosis factor receptor superfamily, member 5 (TNFRSF5) mRNA |
| 5191 | 18313 | 31281 | 1.56 | 2.0E-82 | 4507580 | NT | Homo sapiens tumor necrosis factor receptor superfamily, member 5 (TNFRSF5) mRNA |
| 5587 | 18782 | 31827 | 2.89 | 2.0E-82 | AB018270.1 | NT | Homo sapiens mRNA for KIAA0727 protein, partial cds |
| 6304 | 19477 | 32832 | 4.93 | 2.0E-82 | AF234882.1 | NT | Homo sapiens FAM4A1 splice variant a (FAM4A1) mRNA, complete cds |
| 7658 | 20222 | | 1.19 | 2.0E-82 | AI476428.1 | EST_HUMAN | tm21g05.t1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2157272 3' |
| 7988 | 21038 | 34650 | 0.8 | 2.0E-82 | 8923130 | NT | Homo sapiens poly(ADP-ribose) polymerase 3 (SLIT3), mRNA |
| 8500 | 21581 | 35117 | 1.81 | 2.0E-82 | 11321870 | NT | Homo sapiens slyt (Drosophila) homolog 3 (SLIT3), mRNA |
| 8869 | 21948 | 35482 | 0.58 | 2.0E-82 | 7657340 | NT | Homo sapiens microthidia (mouse) homolog (MORC), mRNA |
| 8868 | 21948 | 35483 | 0.58 | 2.0E-82 | 7657340 | NT | Homo sapiens microthidia (mouse) homolog (MORC), mRNA |
| 10316 | 23350 | 36958 | 1.16 | 2.0E-82 | Y08032.1 | NT | Human endogenous retrovirus-K, LTR U5 and gag gene |
| 10315 | 23350 | 36957 | 1.16 | 2.0E-82 | Y08032.1 | NT | Human endogenous retrovirus-K, LTR U5 and gag gene |
| 11547 | 24603 | 38279 | 1.74 | 2.0E-82 | 11417191 | NT | Homo sapiens leucylcystinyl aminopeptidase (LNPEP), mRNA |
| 11547 | 24603 | 38280 | 1.74 | 2.0E-82 | 11417191 | NT | Homo sapiens leucylcystinyl aminopeptidase (LNPEP), mRNA |
| 11588 | 24841 | 38322 | 2.6 | 2.0E-82 | U80738.1 | NT | Homo sapiens CAGF9 mRNA, partial cds |
| 11588 | 24841 | 38323 | 2.6 | 2.0E-82 | U80738.1 | NT | Homo sapiens CAGF9 mRNA, partial cds |
| 12230 | 25177 | | 2.81 | 2.0E-82 | N94950.1 | EST_HUMAN | Zb31d10.s1 Soares_parrhyoid_tumor_NbHPa Homo sapiens cDNA clone IMAGE:306203 3' |
| 12818 | 25545 | | 3.72 | 2.0E-82 | AA011278.1 | EST_HUMAN | Zb31d10.s1 Soares_fetal_liver_opleat_NFLS_S1 Homo sapiens cDNA clone IMAGE:429568 5' |
| 605 | 13794 | 26813 | 1.69 | 1.0E-82 | 11545921 | NT | Homo sapiens melanoma differentiation associated protein-5 (MDA5), mRNA |
| 1235 | 14394 | | 3.19 | 1.0E-82 | BE886106.1 | EST_HUMAN | 601510859F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3812207 5' |
| 1314 | 14470 | 27636 | 1.38 | 1.0E-82 | BE064386.1 | EST_HUMAN | RC4-BT0310-110300-015-110 BT0310 Homo sapiens cDNA |
| 1315 | 14471 | 27637 | 0.8 | 1.0E-82 | AB011110.2 | NT | Homo sapiens mRNA for KIAA0538 protein, partial cds |
| 9143 | 22222 | 37666 | 0.9 | 1.0E-82 | AB037838.1 | NT | Homo sapiens mRNA for KIAA1417 protein, partial cds |
| 9653 | 22853 | 30474 | 0.51 | 1.0E-82 | AB014562.1 | NT | Homo sapiens mRNA for KIAA0662 protein, partial cds |
| 10451 | 23486 | | 1.4 | 1.0E-82 | BF515938.1 | EST_HUMAN | U1H-BW1-acca-403-Q-U1.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3084053 3' |
| 10984 | 24063 | 37698 | 2.49 | 1.0E-82 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 11258 | 24327 | 37666 | 1.49 | 1.0E-82 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C0048 |
| 5307 | 18424 | 31394 | 1.06 | 9.0E-83 | AF224869.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MAN2A) genes, complete cds |
| 8912 | 21981 | 35530 | 4.89 | 9.0E-83 | BF672220.1 | EST_HUMAN | 602150403F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4291981 5' |
| 10481 | 23516 | 37126 | 0.72 | 9.0E-83 | BE253347.1 | EST_HUMAN | 601117160F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3357734 5' |
| 1448 | 14598 | 27676 | 2.87 | 8.0E-83 | BE363973.1 | EST_HUMAN | 601273346F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3614362 5' |

Page 394 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 1715 | 15992 | 27956 | 10.59 | 8.0E-83 | N66851.1 | EST_HUMAN | z448f12.s1 Scores fetal liver spleen 1NfLS Homo sapiens cDNA clone IMAGE:285823 3' |
| 1388 | 14543 | 27618 | 1.2 | 7.0E-83 | AW385528.1 | EST_HUMAN | QV4LT0016-271299-088.H11 LT0016 Homo sapiens cDNA |
| 2928 | 16105 | | 1.64 | 7.0E-83 | AA584655.1 | EST_HUMAN | nc012h01.s1 NCI_CGAP_Phe1 Homo sapiens cDNA clone IMAGE:1100497 3' similar to contains Alu repetitive element |
| 4936 | 18068 | | 0.85 | 7.0E-83 | BF221813.1 | EST_HUMAN | 7p37a07.x1 NCI_CGAP_P128 Homo sapiens cDNA clone IMAGE:3847883 3' similar to TR:Q9Y318 Q9Y318 DJ207H1.1 |
| 6178 | 19362 | 32699 | 0.95 | 7.0E-83 | 11428857 | NT | Homo sapiens KIAA0100 gene product (KIAA0100), mRNA |
| 416 | 13811 | 28650 | 1.39 | 8.0E-83 | M33320.1 | NT | Human platelet Glycoprotein IIb (GPIIb) gene, exons 2-28 |
| 1828 | 14976 | 28071 | 1.79 | 8.0E-83 | AW573088.1 | EST_HUMAN | ht31h03.x1 Scores_NFL_T_GGC_S1 Homo sapiens cDNA clone IMAGE:2833525 3' similar to SW:YBEB_HAEIN P44471 HYPOTHETICAL PROTEIN H10034.: |
| 3082 | 16258 | 29277 | 0.68 | 6.0E-83 | AW818405.1 | EST_HUMAN | QV4-ST0234-181199-037-065 ST0234 Homo sapiens cDNA |
| 3116 | 16292 | | 0.7 | 6.0E-83 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 3863 | 16816 | 29828 | 0.92 | 6.0E-83 | 11430241 | NT | Homo sapiens hypothetical protein FLJ10378 (FLJ10378), mRNA |
| 5408 | 18810 | 31582 | 1.73 | 6.0E-83 | 4507868 | NT | Homo sapiens VAMP (vesicle-associated membrane protein)-associated protein A (33kD) (VAPA) mRNA, and translated products |
| 6147 | 18324 | 32669 | 1.31 | 6.0E-83 | AJ010770.1 | NT | Homo sapiens hyperion gene, exons 1-50 |
| 7671 | 20737 | 34215 | 2 | 6.0E-83 | 11422024 | NT | Homo sapiens met proto-oncogene (hepatocyte growth factor receptor) (MET), mRNA |
| 9878 | 22818 | 36503 | 3.51 | 6.0E-83 | 4505314 | NT | Homo sapiens myomesin (M-protein) 2 (168kD) (MYOM2), mRNA |
| 9971 | 23010 | 36604 | 0.71 | 6.0E-83 | 11430847 | NT | Homo sapiens pre-mRNA splicing factor similar to S. cerevisiae Prp18 (PRP18), mRNA |
| 9971 | 23010 | 36605 | 0.71 | 6.0E-83 | 11430847 | NT | Homo sapiens pre-mRNA splicing factor similar to S. cerevisiae Prp18 (PRP18), mRNA |
| 11821 | 24810 | | 2.31 | 6.0E-83 | AA486105.1 | EST_HUMAN | ab14610.s1 Strabegene lung (8937210) Homo sapiens cDNA clone IMAGE:840810 3' similar to contains THR12 THR repetitive element |
| 12179 | 25139 | | 4.14 | 6.0E-83 | AF240788.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 969 | 14142 | | 1.24 | 5.0E-83 | U17883.1 | NT | Human succinate dehydrogenase iron-protein subunit (sdhB) gene, exon 5 |
| 2108 | 15996 | | 3 | 5.0E-83 | AF008305.1 | NT | Homo sapiens 26S proteasome regulatory subunit (SUG2) mRNA, complete cds |
| 3728 | 16889 | 28893 | 0.91 | 5.0E-83 | AL133207.2 | NT | Novel human gene mapping to chromosome X |
| 4015 | 17172 | 30180 | 0.73 | 5.0E-83 | 4885190 | NT | Homo sapiens deoxyribonuclease I (DNAse1), mRNA |
| 4554 | 17692 | 30672 | 0.61 | 5.0E-83 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 5190 | 18512 | 31278 | 13.87 | 5.0E-83 | 4557013 | NT | Homo sapiens cathepsin (CAT) mRNA |
| 5190 | 18512 | 31279 | 13.87 | 5.0E-83 | 4557013 | NT | Homo sapiens cathepsin (CAT) mRNA |
| 657 | 13843 | 26870 | 1.87 | 4.0E-83 | AF224659.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 1022 | 14193 | | 4.09 | 3.0E-83 | AA388311.1 | EST_HUMAN | EST78642 Placenta I Homo sapiens cDNA similar to similar to endogenous retrovirus ERV9 |

Page 395 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 2837 | 15261 | | 1.6 | 3.0E-83 | AA632654.1 | EST_HUMAN | np87c07.s1 NCL_OGAP_Try1 Homo sapiens cDNA clone IMAGE:1133292 similar to contains THR12 THR repetitive element; |
| 6708 | 16866 | | 0.82 | 3.0E-83 | AI217223.1 | EST_HUMAN | q73606.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1756882 3' |
| | | | | | | | q64g05.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1621592 3' similar to TR:Q82814 |
| 1843 | 14989 | 28089 | 1.37 | 2.0E-83 | AA993492.1 | EST_HUMAN | Q92814 MYELOBLAST KIAA0216 ; |
| 1843 | 14989 | 28089 | 1.37 | 2.0E-83 | AA993492.1 | EST_HUMAN | q64g05.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1621592 3' similar to TR:Q82814 |
| 1978 | 15121 | 28222 | 9.11 | 2.0E-83 | N68951.1 | EST_HUMAN | Q92814 MYELOBLAST KIAA0216 ; |
| 2251 | 16384 | 28512 | 1.57 | 2.0E-83 | AB033098.1 | NT | Q92814 MYELOBLAST KIAA0216 ; |
| 2913 | 16091 | 29103 | 1.33 | 2.0E-83 | BE828894.1 | EST_HUMAN | Homo sapiens mRNA for KIAA1272 protein, partial cds |
| 3342 | 16515 | | 2.16 | 2.0E-83 | 11430834 | NT | RC6-ET0046-280600-013-H12 ET0046 Homo sapiens cDNA |
| 3874 | 17033 | | 0.94 | 2.0E-83 | AL163202.2 | NT | Homo sapiens sal (Drosophila)-like 1 (SALL1), mRNA |
| 4466 | 17596 | 30576 | 4.95 | 2.0E-83 | AF202876.1 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 4775 | 17910 | 30893 | 3.19 | 2.0E-83 | 7706398 | NT | Homo sapiens hematopoietic progenitor cell antigen CD34 precursor (CD34) mRNA, partial cds |
| 4775 | 17910 | 30894 | 3.19 | 2.0E-83 | 7706398 | NT | Homo sapiens ankyrin repeat-containing protein ASB-2 (LOC51676), mRNA |
| 6385 | 19587 | 31589 | 0.91 | 2.0E-83 | U06879.1 | NT | Homo sapiens ankyrin repeat-containing protein ASB-2 (LOC51676), mRNA |
| 5967 | 19163 | 32468 | 0.87 | 2.0E-83 | 11428081 | EST_HUMAN | Homo sapiens ankyrin repeat-containing protein ASB-2 (LOC51676), mRNA |
| 6086 | 19268 | 32597 | 1.2 | 2.0E-83 | BE885401.1 | EST_HUMAN | Homo sapiens ankyrin repeat-containing protein ASB-2 (LOC51676), mRNA |
| 6885 | 20037 | 33446 | 0.72 | 2.0E-83 | AF128533.1 | NT | Homo sapiens ankyrin repeat-containing protein ASB-2 (LOC51676), mRNA |
| 7683 | 20684 | 34140 | 5.15 | 2.0E-83 | AF128533.1 | NT | Homo sapiens ankyrin repeat-containing protein ASB-2 (LOC51676), mRNA |
| 7687 | 21036 | 34548 | 0.66 | 2.0E-83 | BF105097.1 | EST_HUMAN | Homo sapiens ankyrin repeat-containing protein ASB-2 (LOC51676), mRNA |
| 8028 | 21109 | 34626 | 0.63 | 2.0E-83 | AB001025.1 | NT | Homo sapiens ankyrin repeat-containing protein ASB-2 (LOC51676), mRNA |
| 8028 | 21109 | 34627 | 0.63 | 2.0E-83 | AB001025.1 | NT | Homo sapiens ankyrin repeat-containing protein ASB-2 (LOC51676), mRNA |
| 8176 | 21257 | 34779 | 1.46 | 2.0E-83 | U66707.1 | NT | Homo sapiens ankyrin repeat-containing protein ASB-2 (LOC51676), mRNA |
| 8509 | 21690 | 35124 | 2.52 | 2.0E-83 | AF011920.1 | NT | Homo sapiens ankyrin repeat-containing protein ASB-2 (LOC51676), mRNA |
| 8509 | 21690 | 35125 | 2.52 | 2.0E-83 | AF011920.1 | NT | Homo sapiens ankyrin repeat-containing protein ASB-2 (LOC51676), mRNA |
| 8793 | 22833 | 36412 | 0.54 | 2.0E-83 | 5453881 | NT | Homo sapiens ankyrin repeat-containing protein ASB-2 (LOC51676), mRNA |
| 8793 | 22833 | 36413 | 0.54 | 2.0E-83 | 5453881 | NT | Homo sapiens ankyrin repeat-containing protein ASB-2 (LOC51676), mRNA |
| 10240 | 23275 | 36866 | 3.2 | 2.0E-83 | M22094.1 | NT | Homo sapiens ankyrin repeat-containing protein ASB-2 (LOC51676), mRNA |
| 10240 | 23275 | 36867 | 3.2 | 2.0E-83 | M22094.1 | NT | Homo sapiens ankyrin repeat-containing protein ASB-2 (LOC51676), mRNA |
| 10322 | 23357 | 36967 | 1.35 | 2.0E-83 | AU117659.1 | EST_HUMAN | Homo sapiens ankyrin repeat-containing protein ASB-2 (LOC51676), mRNA |
| 10392 | 23427 | 37034 | 0.78 | 2.0E-83 | AW 505600.1 | EST_HUMAN | Homo sapiens ankyrin repeat-containing protein ASB-2 (LOC51676), mRNA |
| 11088 | 24160 | 37798 | 3.24 | 2.0E-83 | 11436448 | NT | Homo sapiens ankyrin repeat-containing protein ASB-2 (LOC51676), mRNA |
| 11168 | 24238 | 37870 | 1.64 | 2.0E-83 | AL134452.1 | EST_HUMAN | Homo sapiens ankyrin repeat-containing protein ASB-2 (LOC51676), mRNA |

Page 396 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 11168 | 24239 | 37871 | 1.64 | 2.0E-83 | AL134452.1 | EST_HUMAN | DKFZp547J135.1 547 (synonym: hbrf1) Homo sapiens cDNA clone DKFZp547J135.5 |
| 12889 | 25570 | | 3.26 | 2.0E-83 | AB011398.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 1444 | 14597 | 27673 | 2.26 | 1.0E-83 | | 4504326 NT | Homo sapiens hydroxyacyl-Coenzyme A dehydrogenase/3-ketacyl-Coenzyme A thiolase/enoyl-Coenzyme A hydratase (trifunctional protein), beta subunit (HADHB) mRNA |
| 1444 | 14597 | 27674 | 2.26 | 1.0E-83 | | 4504326 NT | Homo sapiens hydroxyacyl-Coenzyme A dehydrogenase/3-ketacyl-Coenzyme A thiolase/enoyl-Coenzyme A hydratase (trifunctional protein), beta subunit (HADHB) mRNA |
| 2076 | 15216 | 28336 | 1.15 | 1.0E-83 | BE883680.1 | EST_HUMAN | Homo sapiens fatty-acid-Coenzyme A ligase, very long-chain 1 (FACVL1) mRNA |
| 2722 | 15840 | 28951 | 1.21 | 1.0E-83 | BE883680.1 | EST_HUMAN | 601507375F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3908764 5' |
| 3251 | 16425 | 29443 | 0.72 | 1.0E-83 | 7662349 | NT | Homo sapiens cell recognition molecule Caspr2 (KIAA0868), mRNA |
| 3972 | 17129 | 30132 | 7.78 | 1.0E-83 | AF053768.1 | NT | Rattus norvegicus brain specific cortactin-binding protein CBP80 mRNA, partial cds |
| 4359 | 17502 | 30484 | 2.22 | 1.0E-83 | Z25822.1 | NT | H. sapiens gene for mitochondrial dodecenoyl-CoA delta-isomerase, exon 3 |
| 5008 | 18137 | 31111 | 2.74 | 1.0E-83 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 6835 | 19888 | 33397 | 1.59 | 1.0E-83 | AI027614.1 | EST_HUMAN | ov69b08.x1 Sceres Testis_NTT Homo sapiens cDNA clone IMAGE:3958863 5' |
| 3897 | 17058 | 30056 | 3.62 | 7.0E-84 | BE901208.1 | EST_HUMAN | PROTEIN (HUMAN); |
| 1323 | 14479 | 27544 | 2.96 | 6.0E-84 | BE838864.1 | EST_HUMAN | RC2-FN0119-200800-011-g05 FN0119 Homo sapiens cDNA |
| 1323 | 14479 | 27545 | 2.96 | 6.0E-84 | BE838864.1 | EST_HUMAN | RC2-FN0119-200800-011-g05 FN0119 Homo sapiens cDNA |
| 2471 | 15598 | 28723 | 17.98 | 6.0E-84 | AA176574.1 | EST_HUMAN | ae86a03.s1 Stralagene schizo brain S11 Homo sapiens cDNA clone IMAGE:071020 3' |
| 5354 | 18481 | | 2.18 | 6.0E-84 | AL042863.2 | EST_HUMAN | DKFZp434H0322_r1 424 (synonym: hies3) Homo sapiens cDNA clone DKFZp434H0322 5' |
| 5635 | 18529 | 31805 | 1.91 | 6.0E-84 | AA897339.1 | EST_HUMAN | dk7g03.s1 Sceres_NFL_I_GBC S1 Homo sapiens cDNA clone IMAGE:1480500 3' similar to gb:M14338 |
| 5777 | 18968 | 32273 | 0.99 | 6.0E-84 | | 11426718 NT | VITAMIN K-DEPENDENT PROTEIN S PRECURSOR (HUMAN); |
| 5777 | 18969 | 32274 | 0.99 | 6.0E-84 | | 11426718 NT | Homo sapiens acetyl LDL receptor; SREC=scavenger receptor expressed by endothelial cells (SREC), mRNA |
| 7842 | 20711 | 34190 | 3.14 | 6.0E-84 | BE810371.1 | EST_HUMAN | Homo sapiens acetyl LDL receptor; SREC=scavenger receptor expressed by endothelial cells (SREC), mRNA |
| 7868 | 20922 | 34429 | 1.05 | 6.0E-84 | AF038391.1 | NT | PM0-LT0019-180500-004-F02 LT0019 Homo sapiens cDNA |
| 8284 | 21346 | 34861 | 2 | 6.0E-84 | BE770199.1 | EST_HUMAN | Homo sapiens pre-mRNA splicing factor (PRP16) mRNA, complete cds |
| 732 | 13814 | 26956 | 1.32 | 6.0E-84 | AA382811.1 | EST_HUMAN | PM4-F10054-160500-004-e10 F10054 Homo sapiens cDNA |
| 3079 | 16255 | | 1.91 | 6.0E-84 | AF109718.1 | NT | EST160694 Testis Homo sapiens cDNA 5' and |
| 6232 | 18407 | 32756 | 0.82 | 5.0E-84 | AA167678.1 | EST_HUMAN | Homo sapiens chromosome 3 subtelomeric region |
| | | | | | | | zq39a07.r1 Stralagene HNT neuron (#937233) Homo sapiens cDNA clone IMAGE:632100 5' similar to |
| | | | | | | | TR:G483915 G483915 RETROTRANSPOSABLE L1 ELEMENT LRE2 FROM CHROMOSOME 1Q.; |

Page 397 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 11838 | 24827 | 38516 | 2.85 | 5.0E-84 | 11428740 | NT | Homo sapiens regulatory factor X, 3 (influences HLA class II expression) (RFX3), mRNA |
| 11852 | 24938 | 38640 | 1.99 | 5.0E-84 | AB032967.1 | NT | Homo sapiens mRNA for KIAA1131 protein, partial cds |
| 11952 | 24938 | 38641 | 1.99 | 5.0E-84 | AB032957.1 | NT | Homo sapiens mRNA for KIAA1131 protein, partial cds |
| 1407 | 14561 | 27635 | 1.34 | 4.0E-84 | AB037735.1 | NT | Homo sapiens mRNA for KIAA1314 protein, partial cds |
| 1443 | 14596 | 27672 | 4.47 | 4.0E-84 | AI695321.1 | EST_HUMAN | wa76c04.x1 Soares_NFL_T_C8C_S1 Homo sapiens cDNA clone IMAGE:2302086 3' similar to SW_NRDC_HUMAN O43847 NARDILYSIN PRECURSOR: |
| 5064 | 18192 | 31167 | 0.86 | 4.0E-84 | 4505928 | NT | Homo sapiens polymerase (DNA-directed), alpha (70kd) (POLA2), mRNA |
| 5085 | 18193 | 31168 | 1.62 | 4.0E-84 | AF069601.2 | NT | Homo sapiens myosin light chain kinase isoform 2 (MLCK), mRNA, complete cds |
| 5377 | 18579 | 31448 | 1.62 | 4.0E-84 | AF022835.1 | NT | Homo sapiens multidrug resistance protein (MRP), exon 13 |
| 5580 | 18874 | 32182 | 1.8 | 4.0E-84 | 11396168 | NT | Homo sapiens protein tyrosine phosphatase, receptor type, G (PTPRG), mRNA |
| 5990 | 19374 | 32163 | 1.8 | 4.0E-84 | 11396168 | NT | Homo sapiens protein tyrosine phosphatase, receptor type, G (PTPRG), mRNA |
| 6398 | 19567 | 32928 | 2.14 | 4.0E-84 | AF050650.1 | NT | Homo sapiens histone deacetylase 3 (HDAC3) gene, complete cds |
| 7925 | 20880 | 34381 | 13.68 | 4.0E-84 | 11421328 | NT | Homo sapiens KIAA0783 gene product (KIAA0783), mRNA |
| 9112 | 22191 | 35735 | 1.12 | 4.0E-84 | 4557526 | NT | Homo sapiens discs, large (Drosophila) homolog 2 (chapsyn-110) (DLG2) mRNA |
| 9112 | 22191 | 35736 | 1.12 | 4.0E-84 | 4557526 | NT | Homo sapiens discs, large (Drosophila) homolog 2 (chapsyn-110) (DLG2) mRNA |
| 11158 | 24229 | 37859 | 4.76 | 4.0E-84 | AB032956.1 | NT | Homo sapiens mRNA for KIAA1130 protein, partial cds |
| 328 | 13640 | 26572 | 2.16 | 3.0E-84 | AF026200.1 | NT | Homo sapiens Bech1 protein homolog mRNA, partial cds |
| 1178 | 14341 | 27395 | 1.53 | 3.0E-84 | 4758081 | NT | Homo sapiens chondroin sulfate proteoglycan 2 (versican) (CSPG2) mRNA |
| 2015 | 16155 | 28280 | 2.39 | 3.0E-84 | 6453856 | NT | Homo sapiens pericentriolar material 1 (PCM1) mRNA |
| 2063 | 16203 | 28319 | 2.36 | 3.0E-84 | AL096880.1 | NT | Novel human mRNA containing Zinc finger C2H2 type domains |
| 3843 | 17002 | 30005 | 5.53 | 3.0E-84 | AF014459.1 | NT | Homo sapiens X-linked juvenile retinoschisis precursor protein (XLRST) mRNA, complete cds |
| 11118 | 24190 | | 6.78 | 3.0E-84 | AI693801.1 | EST_HUMAN | wu20d05.x1 Soares_Diacktraefo_cdon_NHCD Homo sapiens cDNA clone IMAGE:2520565 3' similar to gb:U05083 60S RIBOSOMAL PROTEIN L18A (HUMAN); |
| 2172 | 15307 | 28436 | 6.46 | 2.0E-84 | BE695397.1 | EST_HUMAN | CM1-BT0785-180600-272-b08 BT0785 Homo sapiens cDNA |
| 2172 | 15307 | 28436 | 6.46 | 2.0E-84 | BE695397.1 | EST_HUMAN | CM1-BT0785-180600-272-b08 BT0785 Homo sapiens cDNA |
| 3009 | 18185 | 29209 | 9.21 | 2.0E-84 | AF036943.1 | NT | Homo sapiens myelin transcription factor 1-like (MYT1L) mRNA, complete cds |
| 3027 | 18203 | 29226 | 1.22 | 2.0E-84 | X89211.1 | NT | H. sapiens DNA for endogenous retroviral like element |
| 5043 | 18837 | 31914 | 0.93 | 2.0E-84 | BF611575.1 | EST_HUMAN | U1-H-B14-act-a-02-0-U1.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3084963 3' |
| 5043 | 18837 | 31915 | 0.93 | 2.0E-84 | BF611575.1 | EST_HUMAN | U1-H-B14-act-a-02-0-U1.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3084963 3' |
| 6774 | 19029 | 33325 | 0.92 | 2.0E-84 | H63370.1 | EST_HUMAN | y58a11.s1 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:209324 3' |
| 8247 | 21329 | | 1.55 | 2.0E-84 | AI298874.1 | EST_HUMAN | qm87c09.x1 NCI_CGAP_Lus Homo sapiens cDNA clone IMAGE:1895728 3' |
| 8579 | 21660 | 35200 | 0.98 | 2.0E-84 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 8579 | 21660 | 35201 | 0.98 | 2.0E-84 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 9546 | 22611 | 36179 | 1.24 | 2.0E-84 | AU120280.1 | EST_HUMAN | AU120280 HEMBB1 Homo sapiens cDNA clone HEMBB1000339 5' |

Page 398 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO. | Exon SEQ ID NO. | ORF SEQ ID NO. | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 9833 | 22972 | 36594 | 0.64 | 2.0E-84 | H22841.1 | EST_HUMAN | Yn49e11.1 Soares Infant brain INIB Homo sapiens cDNA clone IMAGE:61393 5' similar to SP-APOH_RAT P26844 BETA-2-GLYCOPROTEIN 1; nae30a02.x1 Lupskl_sympathetic_trunk Homo sapiens cDNA clone IMAGE:4080251 3' similar to TR-Q8UGS3 Q8UGS3 DJ756G23.1; nae30a02.x1 Lupskl_sympathetic_trunk Homo sapiens cDNA clone IMAGE:4080251 3' similar to nae30a02.x1 Lupskl_sympathetic_trunk Homo sapiens cDNA clone IMAGE:4080251 3' similar to TR-Q8UGS3 Q8UGS3 DJ756G23.1; Homo sapiens Intersectin short isoform (ITSN) mRNA, complete cds Homo sapiens tyrosine 3-monooxygenase/hypophan 5-monooxygenase activation protein, zeta polypeptide (YWHAZ) mRNA Homo sapiens complement component 5 (C5), mRNA Homo sapiens schizo brain S11 Homo sapiens cDNA clone IMAGE:1628885 3' am85b11.s1 Stralagene schizo brain S11 Homo sapiens cDNA clone IMAGE:3628257 5' 601308006F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3628257 5' Homo sapiens pericentriolar material 1 (PCM1) mRNA Homo sapiens pericentriolar material 1 (PCM1) mRNA Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3 Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3 DKFZp434N0323_1 434 (synonym: hhes3) Homo sapiens cDNA clone DKFZp434N0323 5' DKFZp434N0323_1 434 (synonym: hhes3) Homo sapiens cDNA clone DKFZp434N0323 5' Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3 Homo sapiens speckle-type POZ protein (SPOP), mRNA Homo sapiens channel-28 kDa erythrocyte integral membrane protein homolog [human, uterus, mRNA, 1340 ultrafine water channel-28 kDa erythrocyte integral membrane protein homolog [human, uterus, mRNA, 1340 n0 Novel human gene mapping to chromosome 13 Novel human gene mapping to chromosome 13 Novel human gene mapping to chromosome 13 Novel human gene mapping to chromosome 13 Homo sapiens polymerase (DNA directed), alpha (POLA), mRNA Homo sapiens NGFI-A binding protein 1 (ERG1 binding protein 1) (NAB1), mRNA Homo sapiens NGFI-A binding protein 1 (ERG1 binding protein 1) (NAB1), mRNA Homo sapiens nuclear transport factor 2 (placental protein 15) (PP15) mRNA Homo sapiens Ca2+-binding protein CABP3 (CABP3) gene, exon 6 and partial cds Homo sapiens ubiquitin specific protease 13 (isopeptidase T-3) (USP13) mRNA Homo sapiens ubiquitin specific protease 13 (isopeptidase T-3) (USP13) mRNA Homo sapiens purinergic receptor P2X-like 1, orphan receptor (P2RXL1), mRNA Homo sapiens aconitase 2, mitochondrial (ACO2), mRNA Homo sapiens chromosome 21 segment HS21C009 |
| 12449 | 25316 | 32092 | 1.81 | 2.0E-84 | BF448000.1 | EST_HUMAN | |
| 12449 | 25316 | 32093 | 1.81 | 2.0E-84 | BF448000.1 | EST_HUMAN | |
| 322 | 13638 | 26588 | 1.5 | 1.0E-84 | AF114488.1 | NT | |
| 663 | 13755 | 26781 | 10.87 | 1.0E-84 | 4507952 | NT | |
| 738 | 13820 | 27542 | 2.63 | 1.0E-84 | AA984378.1 | EST_HUMAN | |
| 1321 | 14477 | 28371 | 3.11 | 1.0E-84 | BE392137.1 | EST_HUMAN | |
| 2114 | 15252 | 28371 | 1.53 | 1.0E-84 | 11427197 | EST_HUMAN | |
| 2288 | 15430 | 30007 | 2.78 | 1.0E-84 | AA720851.1 | NT | |
| 3845 | 17005 | 30859 | 5.89 | 1.0E-84 | AJ229041.1 | NT | |
| 4538 | 17678 | 30859 | 3.03 | 1.0E-84 | AL043314.2 | EST_HUMAN | |
| 4821 | 17854 | 30840 | 3.03 | 1.0E-84 | AL043314.2 | EST_HUMAN | |
| 5031 | 17876 | 30659 | 3.59 | 1.0E-84 | AJ228041.1 | NT | |
| 8043 | 19226 | 32549 | 0.88 | 1.0E-84 | 11434422 | NT | |
| 6319 | 19491 | 32849 | 2.84 | 1.0E-84 | S73482.1 | NT | |
| 7020 | 20156 | 33576 | 1.42 | 1.0E-84 | AL049784.1 | NT | |
| 7020 | 20156 | 33577 | 1.42 | 1.0E-84 | AL049784.1 | NT | |
| 7298 | 20339 | 33789 | 2.53 | 1.0E-84 | AL049784.1 | NT | |
| 7637 | 20708 | 34185 | 10.45 | 1.0E-84 | 8393984 | NT | |
| 7737 | 20798 | 34287 | 1.07 | 1.0E-84 | 11430846 | NT | |
| 7771 | 20798 | 34287 | 2.34 | 1.0E-84 | 11430846 | NT | |
| 9736 | 22800 | 36606 | 2.79 | 1.0E-84 | 5031884 | NT | |
| 9872 | 23011 | 31627 | 0.6 | 1.0E-84 | AF224511.1 | NT | |
| 9894 | 18488 | 31528 | 1.6 | 1.0E-84 | 4507848 | NT | |
| 9894 | 18488 | 31528 | 1.6 | 1.0E-84 | 4507848 | NT | |
| 12325 | 25236 | 32088 | 2.62 | 1.0E-84 | 11417812 | NT | |
| 12438 | 25311 | 32088 | 3.77 | 1.0E-84 | 11418185 | NT | |
| 889 | 14161 | | 1.94 | 9.0E-85 | AL163209.2 | NT | |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 1098 | 14263 | 27319 | 2.89 | 9.0E-85 | U51432.1 | NT | Homo sapiens nuclear protein Skip mRNA, complete cds |
| 1098 | 14263 | 27320 | 2.89 | 9.0E-85 | U51432.1 | NT | Homo sapiens nuclear protein Skip mRNA, complete cds |
| 1609 | 14762 | 27841 | 1.12 | 9.0E-85 | M33282.1 | NT | Human plasminogen gene, exon 7 |
| 1609 | 14762 | 27842 | 1.12 | 9.0E-85 | M33282.1 | NT | Human plasminogen gene, exon 7 |
| 1709 | 14860 | 27849 | 3.59 | 9.0E-85 | 7657020 | NT | Homo sapiens DKFZp434P211 protein (DKFZP434P211), mRNA |
| 3870 | 17029 | | 0.8 | 9.0E-85 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 4366 | 17609 | 30490 | 0.92 | 9.0E-85 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 5001 | 18130 | 31105 | 0.89 | 9.0E-85 | 5901979 | NT | Homo sapiens heat shock transcription factor 2 binding protein (HSF2BP), mRNA |
| 5032 | 18160 | 31137 | 1.16 | 9.0E-85 | AL163268.2 | NT | Homo sapiens chromosome 21 segment HS21C088 |
| 13046 | 14860 | 27849 | 1.78 | 9.0E-85 | 7657020 | NT | Homo sapiens DKFZp434P211 protein (DKFZP434P211), mRNA |
| 1159 | 14323 | 27378 | 4.84 | 7.0E-85 | L05094.1 | NT | Homo sapiens ribosomal protein L27 mRNA, complete cds |
| 11943 | 24629 | | 5.61 | 7.0E-85 | AF113210.1 | NT | Homo sapiens MSTP030 mRNA, complete cds |
| 11702 | 24699 | 36391 | 2.56 | 6.0E-85 | 11436573 | NT | Homo sapiens DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 10 (RNA helicase) (DDX10), mRNA |
| 11702 | 24699 | 36392 | 2.56 | 6.0E-85 | 11436573 | NT | Homo sapiens DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 10 (RNA helicase) (DDX10), mRNA |
| 12060 | 25041 | 38750 | 2 | 6.0E-85 | AA403053.1 | EST_HUMAN | z62601.1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:728989 5' similar to TR:G1335769 |
| 2410 | 16540 | 28668 | 4.09 | 5.0E-85 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 4352 | 17690 | | 0.71 | 5.0E-85 | AF211189.1 | NT | Homo sapiens T-type calcium channel alpha1 subunit Alpha1-a isoform (CACNA1I) mRNA, complete cds |
| 5567 | 18764 | 31804 | 1.59 | 5.0E-85 | BF035374.1 | EST_HUMAN | 601458646F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3862402 5' |
| 5567 | 18764 | 31805 | 1.59 | 5.0E-85 | BF035374.1 | EST_HUMAN | 601468946F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3862402 5' |
| 11981 | 24442 | 38101 | 2.31 | 5.0E-85 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 13127 | 17690 | | 1.72 | 5.0E-85 | AF211189.1 | NT | Homo sapiens T-type calcium channel alpha1 subunit Alpha1-a isoform (CACNA1I) mRNA, complete cds |
| 6276 | 19450 | 32708 | 1.39 | 4.0E-85 | BF677910.1 | EST_HUMAN | 602084730F1 NIH_MGC_63 Homo sapiens cDNA clone IMAGE:4249087 5' |
| 6276 | 19450 | 32709 | 1.39 | 4.0E-85 | BF677910.1 | EST_HUMAN | 602084730F1 NIH_MGC_63 Homo sapiens cDNA clone IMAGE:4249087 5' |
| 8021 | 21074 | 34588 | 3.43 | 4.0E-85 | BE982304.1 | EST_HUMAN | 601605022E2 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3008940 5' |
| 10798 | 23831 | | 1.9 | 4.0E-85 | BE079263.1 | EST_HUMAN | RCT-BT0623-120200-011-c07 BT0623 Homo sapiens cDNA |
| 1327 | 14484 | 27551 | 0.91 | 3.0E-85 | AF098157.1 | NT | Homo sapiens protein phosphatase 2A BR gamma subunit gene, exon 6 |
| 1821 | 14670 | 28062 | 4.8 | 3.0E-85 | T87495.1 | EST_HUMAN | ye53g08J Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:121504 5' |
| 5019 | 18148 | 31125 | 1.03 | 3.0E-85 | 11024695 | NT | Homo sapiens F-box only protein 24 (FBXO24), mRNA |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 5019 | 18148 | 31126 | 1.03 | 3.0E-85 | 110246895 | NT | Homo sapiens F-box only protein 24 (FBXO24), mRNA |
| 5080 | 18208 | 31180 | 0.91 | 3.0E-85 | 7383442 | NT | Homo sapiens olfactory receptor, family 12, subfamily D, member 2 (OR12D2), mRNA |
| 5517 | 18715 | 31729 | 6.35 | 3.0E-85 | 11436001 | NT | Homo sapiens lacritin protein (LPRP), mRNA |
| 6210 | 18385 | 32734 | 0.72 | 3.0E-85 | 11422024 | NT | Homo sapiens met proto-oncogene (hepatocyte growth factor receptor) (MET), mRNA |
| 6282 | 18436 | 32782 | 4.92 | 3.0E-85 | 7682309 | NT | Homo sapiens KIAA0793 gene product (KIAA0793), mRNA |
| 6262 | 19436 | 32783 | 4.92 | 3.0E-85 | 7682309 | NT | Homo sapiens KIAA0793 gene product (KIAA0793), mRNA |
| 7081 | 20185 | | 7.95 | 3.0E-85 | AJ404468.1 | NT | Homo sapiens mRNA for dynein heavy chain (DNAH9 gene) |
| 7555 | 20627 | 34103 | 0.84 | 3.0E-85 | 11418870 | NT | Homo sapiens GTPase regulator associated with the focal adhesion kinase pp125(FAK); KIAA0821 protein (KIAA0821), mRNA |
| 8056 | 21139 | 34659 | 1.44 | 3.0E-85 | U44953.1 | NT | Homo sapiens DENN mRNA, complete cds |
| 8706 | 21786 | 35319 | 0.48 | 3.0E-85 | 11528828 | NT | Homo sapiens CGI-81 protein (LOC51108), mRNA |
| 9178 | 22256 | 35798 | 4.39 | 3.0E-85 | 11430889 | NT | Homo sapiens phospholipase C, epsilon (PLCE), mRNA |
| 9508 | 22772 | 36343 | 0.84 | 3.0E-85 | 11421422 | NT | Homo sapiens small nuclear ribonucleoprotein polypeptide B* (SNRPB2), mRNA |
| 9508 | 22772 | 36344 | 0.84 | 3.0E-85 | 11421422 | NT | Homo sapiens small nuclear ribonucleoprotein polypeptide B* (SNRPB2), mRNA |
| 10700 | 23733 | 37338 | 0.72 | 3.0E-85 | AF098642.1 | NT | Homo sapiens phospholipid scramblase mRNA, complete cds |
| 11798 | 24788 | 38494 | 1.48 | 3.0E-85 | 5031660 | NT | Homo sapiens EGF-like repeats and discolidin-like domains 3 (EDIL3), mRNA |
| 12988 | 25648 | | 3.02 | 3.0E-85 | 11418177 | NT | Homo sapiens Ran GTPase activating protein 1 (RANGAP1), mRNA |
| 985 | 14157 | 27218 | 0.62 | 2.0E-85 | 7657268 | NT | Homo sapiens KIAA0829 protein Mex2 Interacting nuclear target (MINT) homolog (KIAA0829), mRNA |
| 1065 | 14231 | 27289 | 2.35 | 2.0E-85 | AF248640.1 | NT | Homo sapiens Intersectin 2 (SH3D1B) mRNA, complete cds |
| 1436 | 14589 | 27682 | 1.19 | 2.0E-85 | 7709205 | NT | Homo sapiens CGI-201 protein (LOC51340), mRNA |
| 1431 | 14604 | 27682 | 13.02 | 2.0E-85 | 5174776 | NT | Homo sapiens apolipoprotein C-II (APOC2) mRNA |
| 1451 | 14804 | 27683 | 13.02 | 2.0E-85 | 5174775 | NT | Homo sapiens apolipoprotein C-II (APOC2) mRNA |
| 2304 | 15436 | 28668 | 2.92 | 2.0E-85 | U10525.1 | NT | Human DNA polymerase beta gene, exons 12 and 13 |
| 2884 | 14523 | | 4.22 | 2.0E-85 | 7657468 | NT | Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA |
| 3087 | 16263 | 29280 | 3.57 | 2.0E-85 | M30938.1 | NT | Human Ku (p70/p80) subunit mRNA, complete cds |
| 4454 | 17594 | 30574 | 4.88 | 2.0E-85 | 4508880 | NT | Homo sapiens plasmalogen (PLG) mRNA |
| 4687 | 17822 | 30810 | 0.74 | 2.0E-85 | 4826977 | NT | Homo sapiens retin (RETN) mRNA |
| 5030 | 18159 | 31136 | 1.21 | 2.0E-85 | AL183284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 9473 | 22530 | 36084 | 1.78 | 2.0E-85 | AI760820.1 | EST_HUMAN | MSR1 repetitive element ; |
| 9849 | 22899 | 36469 | 0.82 | 2.0E-85 | AI814459.1 | EST_HUMAN | wd48d03.x1 Soares_NFL_I_9BC_S1 Homo sapiens cDNA clone IMAGE:2331481 3' |
| 10489 | 23504 | 37118 | 0.84 | 2.0E-85 | AI886384.1 | EST_HUMAN | wn84012.x1 NCI_CGAP_U12 Homo sapiens cDNA clone IMAGE:2443607 3' |
| 2360 | 15481 | | 3.65 | 1.0E-85 | BE794308.1 | EST_HUMAN | 601591416F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3945818 5' |

Page 401 of 550
Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 2487 | 15594 | 28719 | 9.38 | 1.0E-85 | BE618392.1 | EST_HUMAN | 601462817F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3886021 5' |
| 2487 | 15594 | 28720 | 9.36 | 1.0E-85 | BE618392.1 | EST_HUMAN | 601462817F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3886021 5' |
| 7893 | 21032 | 34545 | 0.61 | 1.0E-85 | BE082991.1 | EST_HUMAN | MFO-BT0264-221189-002-03 BT0264 Homo sapiens cDNA |
| 8884 | 23023 | 36615 | 2.13 | 1.0E-85 | BE257917.1 | EST_HUMAN | 601109738F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3350553 5' |
| 10415 | 23450 | 37055 | 0.76 | 1.0E-85 | AW813525.1 | EST_HUMAN | RC1-ST0198-081099-011-d05 ST0198 Homo sapiens cDNA |
| 11184 | 24235 | 37865 | 2.79 | 1.0E-85 | AA778785.1 | EST_HUMAN | Z45103.s1 Soares_fetal_liver_spleen_1NLS_S1 Homo sapiens cDNA clone IMAGE:453245 3' |
| 11184 | 24235 | 37868 | 2.79 | 1.0E-85 | AA778785.1 | EST_HUMAN | Z45103.s1 Soares_fetal_liver_spleen_1NLS_S1 Homo sapiens cDNA clone IMAGE:453245 3' |
| 11245 | 24314 | 37853 | 1.86 | 1.0E-85 | BF311552.1 | EST_HUMAN | 601897003F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4128440 5' |
| 11245 | 24314 | 37854 | 1.88 | 1.0E-85 | BF311552.1 | EST_HUMAN | 601897003F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4128440 5' |
| 12068 | 25046 | 38757 | 3.29 | 1.0E-85 | AI198420.1 | EST_HUMAN | q56a07.x1 NCI_CGAP_Brn28 Homo sapiens cDNA clone IMAGE:1860468 3' |
| 12330 | 25404 | 32045 | 4.68 | 1.0E-85 | 11417862 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 12601 | 25404 | 32045 | 2.92 | 1.0E-85 | 11417862 | EST_HUMAN | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 1460 | 14813 | 32774 | 0.82 | 8.0E-88 | 11424140 | NT | Homo sapiens KIAA0680 gene product (KIAA0680), mRNA |
| 6254 | 19428 | 26480 | 2.2 | 7.0E-86 | 7682247 | NT | Homo sapiens KIAA0680 gene product (KIAA0680), mRNA |
| 233 | 13454 | 27182 | 1.03 | 7.0E-86 | AA860801.1 | EST_HUMAN | aj88103.s1 Soares_papillary_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1403559 3' |
| 980 | 14133 | 27183 | 1.03 | 7.0E-86 | AA860801.1 | EST_HUMAN | aj88103.s1 Soares_papillary_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1403559 3' |
| 980 | 14133 | 27183 | 0.97 | 7.0E-86 | 9988888 | NT | Homo sapiens tumor endothelial marker 7 precursor (TEM7), mRNA |
| 6325 | 19497 | 32853 | 0.97 | 7.0E-86 | 9988888 | NT | Homo sapiens tumor endothelial marker 7 precursor (TEM7), mRNA |
| 6325 | 19497 | 32854 | 0.97 | 7.0E-86 | 9988888 | NT | Homo sapiens tumor endothelial marker 7 precursor (TEM7), mRNA |
| 7116 | 18542 | 31489 | 6.43 | 7.0E-86 | 11421737 | NT | Homo sapiens Tax1 (human T-cell leukemia virus type I) binding protein 1 (TAX1BP1), mRNA |
| 8943 | 22022 | 35562 | 3.98 | 7.0E-86 | 138557.1 | NT | Homo sapiens galactose oxidase (GALC) gene, exon 15 |
| 8901 | 22941 | 36595 | 1.13 | 7.0E-86 | 5453897 | NT | Homo sapiens RAN binding protein 7 (RANBP7), mRNA |
| 8960 | 22999 | 36595 | 1.68 | 7.0E-86 | 1526307 | NT | Homo sapiens DiGeorge syndrome critical region gene 6 (DGCR6), mRNA |
| 11204 | 24273 | 37909 | 1.44 | 7.0E-86 | 11417012 | NT | Homo sapiens similar to transcription factor CA150 (H. sapiens) (LOC63170), mRNA |
| 11204 | 24273 | 37910 | 1.44 | 7.0E-86 | 11417012 | NT | Homo sapiens similar to transcription factor CA150 (H. sapiens) (LOC63170), mRNA |
| 12117 | 25067 | 38502 | 1.99 | 7.0E-86 | 11418903 | NT | Homo sapiens coagulation factor XIII, A1 polypeptide (F13A1), mRNA |
| 1322 | 14478 | 27543 | 1.87 | 6.0E-86 | 4605492 | NT | Homo sapiens oxoglutarate dehydrogenase (lipcamide) (OGDH), mRNA |
| 217 | 13439 | 26471 | 2.15 | 4.0E-86 | BE547173.1 | EST_HUMAN | 601072594F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3458890 5' |
| 6159 | 18335 | 32880 | 11.61 | 4.0E-86 | BE26843.1 | EST_HUMAN | 601072594F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3458890 5' |
| 11517 | 13439 | 26471 | 2.34 | 4.0E-86 | BE547173.1 | EST_HUMAN | 601072594F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3458890 5' |
| 4404 | 17547 | 30531 | 0.94 | 3.0E-86 | BE667703.1 | EST_HUMAN | 601443282F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847455 5' |
| 6713 | 18906 | 32201 | 6.19 | 3.0E-86 | AW340948.1 | EST_HUMAN | x282h12.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2871719 3' |
| 8457 | 21558 | 35067 | 1.21 | 3.0E-86 | AV723239.1 | EST_HUMAN | AV723239 HTB Homo sapiens cDNA clone HTB85D04 5' |
| 10425 | 23460 | 37065 | 3.54 | 3.0E-86 | BE886479.1 | EST_HUMAN | 601508696F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3911303 6' |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Description |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 10425 | 23460 | 37066 | 3.54 | 3.0E-86 | BE886478.1 | EST_HUMAN | G01509696F1 NIH_MGC 71 Homo sapiens cDNA clone IMAGE:3911303 5' |
| 11720 | 23906 | 37629 | 4.87 | 3.0E-86 | A169240.1 | EST_HUMAN | U11802.X1 NCI CGAP_P428 Homo sapiens cDNA clone IMAGE:2261371 3' |
| 11803 | 24763 | 38491 | 1.37 | 3.0E-86 | AV690498.1 | EST_HUMAN | AV690469 GKO Homo sapiens cDNA clone GKCBS02 5' |
| 12300 | 25971 | | 3.38 | 3.0E-86 | BE410354.1 | EST_HUMAN | G01302333F1 NIH_MGC 21 Homo sapiens cDNA clone IMAGE:3636753 5' |
| 277 | 13485 | 28525 | 1.56 | 2.0E-86 | AA306284.1 | EST_HUMAN | EST177232 Jurkat T-cell VI Homo sapiens cDNA 5' end |
| 427 | 13622 | | 2.69 | 2.0E-86 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 1217 | 14378 | 27437 | 3.33 | 2.0E-86 | N58977.1 | EST_HUMAN | Human endogenous retrovirus, complete genome |
| 2265 | 15398 | 28526 | 8.53 | 2.0E-86 | 9635487 | NT | Homo sapiens mRNA for KIAA1277 protein, partial cds |
| 2342 | 15473 | 28607 | 1.56 | 2.0E-86 | AB033103.1 | EST_HUMAN | EST378215 MAGI ressequences, MAGI Homo sapiens cDNA |
| 3502 | 16669 | 29676 | 1.61 | 2.0E-86 | AW966142.1 | EST_HUMAN | Homo sapiens yscophosphatidic acid acyltransferase-delta (LPAAT-delta) mRNA, complete cds |
| 3840 | 16999 | 30001 | 2.29 | 2.0E-86 | AF156776.1 | NT | Homo sapiens yscophosphatidic acid acyltransferase-delta (LPAAT-delta) mRNA, complete cds |
| 3840 | 16999 | 30002 | 2.29 | 2.0E-86 | AF156776.1 | NT | hdb7g08.x1 NCI CGAP_G06 Homo sapiens cDNA clone IMAGE:2816542 3' |
| 4151 | 17303 | | 2.59 | 2.0E-86 | AW515742.1 | EST_HUMAN | Homo sapiens cAMP-specific phosphodiesterase 8A (PDE8A) mRNA, partial cds |
| 4910 | 18040 | 31030 | 3.21 | 2.0E-86 | AF059490.1 | NT | H sapiens mRNA encoding phospholipase c |
| 5993 | 19178 | 32499 | 1.32 | 2.0E-86 | Z16411.1 | NT | H sapiens mRNA encoding phospholipase c |
| 5993 | 19178 | 32500 | 1.32 | 2.0E-86 | Z16411.1 | NT | Homo sapiens similar to extracellular pyrophosphatase/phosphodiesterase 3 (H. sapiens) (LOC83214), mRNA |
| 7221 | 25837 | 33501 | 0.76 | 2.0E-86 | 11419428 | NT | Human Chediak-Higashi syndrome protein short isoform (LYST) mRNA, complete cds |
| 8189 | 21281 | 34803 | 0.56 | 2.0E-86 | U84744.1 | NT | Homo sapiens butyrobetaine (gamma), 2-oxoglutarate dioxygenase (gamma-butyrobetaine hydroxylase) (BBOX), mRNA |
| 8772 | 21851 | 35392 | 2.52 | 2.0E-86 | 11437135 | NT | Homo sapiens butyrobetaine (gamma), 2-oxoglutarate dioxygenase (gamma-butyrobetaine hydroxylase) (BBOX), mRNA |
| 8772 | 21851 | 35393 | 2.52 | 2.0E-86 | 11437135 | NT | Homo sapiens phospholipid scramblase 1 (PLSCR1), mRNA |
| 8104 | 22183 | 35728 | 0.68 | 2.0E-86 | 10663876 | NT | Homo sapiens chromosome segregation 1 (yeast homolog) like (CSE1L), mRNA |
| 8519 | 22684 | 36153 | 1.96 | 2.0E-86 | 11422084 | NT | Homo sapiens basic-helix-loop-helix-PAS protein (NPASS3), mRNA |
| 10964 | 23698 | 37307 | 2.9 | 2.0E-86 | 11546846 | NT | Homo sapiens basic-helix-loop-helix-PAS protein (NPASS3), mRNA |
| 10564 | 23698 | 37308 | 2.9 | 2.0E-86 | 11546846 | NT | Homo sapiens hypothetical protein FLJ20125 (FLJ20125), mRNA |
| 10667 | 23701 | 37311 | 0.48 | 2.0E-86 | 11417120 | NT | Homo sapiens mRNA for KIAA1411 protein, partial cds |
| 10721 | 23754 | 37360 | 1.25 | 2.0E-86 | AB037832.1 | NT | Homo sapiens ribosomal protein S6 kinase, 90kD, polypeptide 5 (RPS6KA5) mRNA |
| 11143 | 24216 | 37842 | 1.76 | 2.0E-86 | 4759051 | NT | Homo sapiens thyroid autoantigen 70kD (Ku antigen) (G22P1), mRNA |
| 12769 | 25527 | 32006 | 6.3 | 2.0E-86 | 11418189 | NT | Homo sapiens gene for AF-6, complete cds |
| 12980 | 25638 | | 2.56 | 2.0E-86 | AB011399.1 | NT | Homo sapiens NADH dehydrogenase (ubiquinone) Fe-S protein 1 (78kD) (NADH-coenzyme Q reductase) (NDUFS1) mRNA |
| 1627 | 14779 | 27864 | 2.15 | 1.0E-86 | 4826855 | NT | |

Page 403 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 3231 | 16405 | 29417 | 1.68 | 1.0E-88 | 5453649 | NT | Homo sapiens fibulin 5 (FBLN5) mRNA |
| 3307 | 16481 | 29502 | 2.39 | 1.0E-88 | L20492.1 | NT | Human gamma-glutamyl transpeptidase mRNA, complete cds |
| 3368 | 16540 | 29553 | 1.74 | 1.0E-86 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 3368 | 16540 | 29564 | 1.74 | 1.0E-86 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 4390 | 17523 | 30504 | 5.41 | 1.0E-86 | AL163300.2 | NT | Homo sapiens chromosome 21 segment HS21C100 |
| 4743 | 17878 | 30881 | 0.94 | 1.0E-86 | 4507334 | NT | Homo sapiens synaptotagmin 1 (SYNJ1), mRNA |
| 5670 | 18864 | 32149 | 1.85 | 1.0E-86 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 11805 | 18864 | 32149 | 1.63 | 1.0E-86 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 5472 | 18672 | | 1.84 | 9.0E-87 | AI150703.1 | EST_HUMAN | qbt7c09.x1 Soares_fetal_heart_NbH19W Homo sapiens cDNA clone IMAGE:1708128 3' similar to SW/K1CJ_MOUSE_P02535 KERATIN, TYPE I CYTOSKELETAL 10 ; |
| 7608 | 20676 | 34150 | 1.92 | 9.0E-87 | 4757721 | NT | Homo sapiens a disintegrin and metalloproteinase domain 22 (ADAM22), mRNA |
| 7608 | 20676 | 34151 | 1.82 | 9.0E-87 | 4757721 | NT | Homo sapiens a disintegrin and metalloproteinase domain 22 (ADAM22), mRNA |
| 492 | 13686 | 26720 | 49.59 | 8.0E-87 | X62245.1 | NT | O. cuniculus mRNA for elongation factor 1 alpha |
| 2369 | 15500 | 28628 | 3.27 | 7.0E-87 | BF063211.1 | EST_HUMAN | 7H9502.x1 NCI_CGAP_Cot16 Homo sapiens cDNA clone IMAGE:3322779 3' |
| 2369 | 15500 | 28627 | 3.27 | 7.0E-87 | BF063211.1 | EST_HUMAN | 7H9502.x1 NCI_CGAP_Cot16 Homo sapiens cDNA clone IMAGE:3322779 3' |
| 6530 | 19694 | 33067 | 1.38 | 7.0E-87 | AW890336.1 | EST_HUMAN | MRO-NT0039-020500-004-af11 NT0039 Homo sapiens cDNA |
| 8384 | 21465 | 34890 | 3 | 7.0E-87 | BF352776.1 | EST_HUMAN | IL3-4T0619-060700-198-D10 HT0619 Homo sapiens cDNA |
| 8653 | 21096 | 34610 | 0.66 | 7.0E-87 | BE712651.1 | EST_HUMAN | IL5-HT0702-160800-103-008 HT0702 Homo sapiens cDNA |
| 10276 | 23311 | 36907 | 3.38 | 7.0E-87 | AL043314.2 | EST_HUMAN | DKFZp434N0323_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434N0323 5' |
| 10276 | 23311 | 36908 | 3.38 | 7.0E-87 | AL043314.2 | EST_HUMAN | DKFZp434N0323_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434N0323 5' |
| 10888 | 25855 | | 0.53 | 7.0E-87 | AI081585.1 | EST_HUMAN | ox59h01.s1 Soares_NHMPu_S1 Homo sapiens cDNA clone IMAGE:1680657 3' |
| 11129 | 24201 | 37825 | 6.59 | 7.0E-87 | K03002.1 | NT | Human mRNA from chromosome 15 gene with homology to MHC-HLA-SB-1 Intron A |
| 11129 | 24201 | 37826 | 6.59 | 7.0E-87 | K03002.1 | NT | Human mRNA from chromosome 15 gene with homology to MHC-HLA-SB-1 Intron A |
| 3615 | 18779 | 29794 | 1.19 | 6.0E-87 | 7657213 | NT | Human sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA |
| 6551 | 19713 | 33089 | 1.47 | 6.0E-87 | AB028004.1 | NT | Homo sapiens mRNA for KIAA1081 protein, partial cds |
| 10963 | 24044 | | 4.48 | 6.0E-87 | 11432444 | NT | Homo sapiens similar to SET translocation (myeloid leukemia-associated) (H. sapiens) (LOC63102), mRNA |
| 1184 | 14347 | 27404 | 1.62 | 5.0E-87 | AA382811.1 | EST_HUMAN | EST196094 Testis I Homo sapiens cDNA 5' end |
| 12603 | 14347 | 27404 | 2.58 | 6.0E-87 | AA382811.1 | EST_HUMAN | EST196094 Testis I Homo sapiens cDNA 5' end |
| 988 | 14160 | 27220 | 1.37 | 4.0E-87 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 1198 | 14361 | 27420 | 7.91 | 4.0E-87 | AB037835.1 | NT | Homo sapiens mRNA for KIAA1414 protein, partial cds |
| 1461 | 14614 | 27866 | 1.31 | 4.0E-87 | R78133.1 | EST_HUMAN | y180110.r1 Soares placenta Nb21P Homo sapiens cDNA clone IMAGE:145579 5' similar to contains Alu repetitive element; |
| 2086 | 15228 | 28348 | 2.28 | 4.0E-87 | AB007925.1 | NT | Homo sapiens mRNA for KIAA0458 protein, partial cds |

Page 404 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 2143 | 15279 | 28402 | 1.29 | 4.0E-87 | R78133.1 | EST_HUMAN | y80f10.r1 Soares placenta Nb2HP Homo sapiens cDNA IMAGE:145579 5' similar to contains Alu repetitive element |
| 2143 | 15279 | 28403 | 1.29 | 4.0E-87 | R78133.1 | EST_HUMAN | y80f10.r1 Soares placenta Nb2HP Homo sapiens cDNA IMAGE:145579 5' similar to contains Alu repetitive element |
| 2493 | 15620 | 28738 | 0.99 | 4.0E-87 | 7706299 | NT | Homo sapiens CGI-80 protein (LOC51828), mRNA |
| 2493 | 15620 | 28739 | 0.99 | 4.0E-87 | 7706299 | NT | Homo sapiens CGI-80 protein (LOC51828), mRNA |
| 3553 | 16718 | 29732 | 3.61 | 4.0E-87 | 5174574 | NT | Homo sapiens myotubular myopathy or mixed-lineage leukemia (t(11q24) homoblog), translocated to, 4 (MLLT4) mRNA |
| 5582 | 18759 | 31798 | 4.6 | 4.0E-87 | O00321 | SWISSPROT | ETS-RELATED PROTEIN 71 (ETS TRANSLLOCATION VARIANT 2) |
| 5869 | 19059 | 32366 | 0.58 | 4.0E-87 | U85429.1 | NT | Human transcription factor NFATx3 mRNA, complete cds |
| 6170 | 19346 | 32692 | 4.34 | 4.0E-87 | BE247284.1 | EST_HUMAN | TCBAP1E4051 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP-4051 |
| 7843 | 20803 | 34406 | 0.71 | 4.0E-87 | 11425291 | NT | Homo sapiens KIAA1072 protein (KIAA1072), mRNA |
| 7848 | 20803 | 34407 | 0.71 | 4.0E-87 | 11425291 | NT | Homo sapiens KIAA1072 protein (KIAA1072), mRNA |
| 7950 | 21000 | 34510 | 3.84 | 4.0E-87 | L48524.1 | NT | Homo sapiens tuberin (TSC2) gene, exon 10 |
| 11437 | 24488 | 38165 | 3.42 | 4.0E-87 | M60676.1 | NT | Human von Willebrand factor pseudogene corresponding to exons 23 through 34 |
| 12705 | 26023 | 31871 | 1.27 | 4.0E-87 | 11417862 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 12705 | 26023 | 31872 | 1.27 | 4.0E-87 | 11417862 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 12808 | 26583 | | 53.7 | 4.0E-87 | 4835420 | NT | Homo sapiens purinergic receptor P2X-like 1, orphan receptor (P2RXL1), mRNA |
| 2839 | 16950 | 29057 | 14.35 | 2.0E-87 | AU116935.1 | EST_HUMAN | Homo sapiens high-mobility group (nonhistone chromosomal) protein 4 (HMG4) mRNA |
| 3884 | 17043 | 30042 | 1.02 | 2.0E-87 | BF376311.1 | EST_HUMAN | AU116935 HEMBA1 Homo sapiens cDNA clone HEMBA1000307 5' |
| 5033 | 18161 | 31138 | 3.2 | 2.0E-87 | BE175478.1 | EST_HUMAN | CMO-TN0038-163900-552-H08 TN0038 Homo sapiens cDNA |
| 5076 | 18204 | 31176 | 0.8 | 2.0E-87 | BE175478.1 | EST_HUMAN | RC6-HT0580-200300-031-G04 HT0580 Homo sapiens cDNA |
| 5778 | 18970 | 32275 | 12.22 | 2.0E-87 | BE734190.1 | EST_HUMAN | 601569041F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3843730 5' |
| 5778 | 18970 | 32276 | 12.22 | 2.0E-87 | BE734190.1 | EST_HUMAN | 601569041F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3843730 5' |
| 6456 | 19623 | | 4.87 | 2.0E-87 | BE587193.1 | EST_HUMAN | 601569041F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3883348 5' |
| 6838 | 19891 | 33399 | 0.79 | 2.0E-87 | N48128.1 | EST_HUMAN | 60176032F1 NIH_MGC_17 Homo sapiens cDNA clone GLCDSG04 3' |
| 6920 | 20235 | 33668 | 0.75 | 2.0E-87 | AV654143.1 | EST_HUMAN | 60176032F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3631511 5' |
| 7324 | 20406 | 33668 | 1.35 | 2.0E-87 | BE294432.1 | EST_HUMAN | Homo sapiens hct domain and RLD 2 (HERC2), mRNA |
| 7374 | 20463 | 33918 | 0.7 | 2.0E-87 | 11433048 | NT | yw21e07.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:243398 5' |
| 7611 | 20881 | 34157 | 36.59 | 2.0E-87 | N48128.1 | EST_HUMAN | yw21e07.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:243398 5' |
| 7864 | 20918 | 34424 | 35.3 | 2.0E-87 | X82851.1 | NT | Human cyclophilin gene for cyclophilin (EC 5.2.1.8) |
| 8589 | 21870 | 35209 | 3.35 | 2.0E-87 | BE531136.1 | EST_HUMAN | 601278315F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3610559 5' |
| 9988 | 23027 | | 4.88 | 2.0E-87 | BE531136.1 | EST_HUMAN | 601278315F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3610559 5' |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 1209 | 15989 | | 2.2 | 1.0E-87 | 7705683 | NT | Homo sapiens putative glycolipid transfer protein (LOC51054), mRNA |
| 1463 | 14618 | 27698 | 1.81 | 1.0E-87 | AW361877.1 | EST_HUMAN | PM2-CT0265-141099-001-g04 CT0265 Homo sapiens cDNA |
| 1463 | 14618 | 27609 | 1.61 | 1.0E-87 | AW361877.1 | EST_HUMAN | PM2-CT0266-141099-001-g04 CT0265 Homo sapiens cDNA |
| 3901 | 10962 | 28960 | 6.18 | 1.0E-87 | Y00052.1 | NT | Human mRNA for T-cell cyclophilin |
| 3828 | 16988 | 29991 | 2.3 | 1.0E-87 | 4768827 | NT | Homo sapiens neurxin III (NRXN3) mRNA |
| 6356 | 19528 | 32883 | 1.63 | 1.0E-87 | AF073371.1 | NT | Homo sapiens growth factor receptor-bound protein 10 (GRB10) gene, exon 8 |
| 6356 | 19528 | 32884 | 1.83 | 1.0E-87 | AF073371.1 | NT | Homo sapiens growth factor receptor-bound protein 10 (GRB10) gene, exon 8 |
| 7333 | 20414 | 33876 | 1.09 | 1.0E-87 | 4808786 | NT | Homo sapiens IQ motif containing GTPase activating protein 1 (IQGAP1) mRNA |
| 7658 | 20630 | 34105 | 1.05 | 1.0E-87 | 11431590 | NT | Homo sapiens protein kinase C, beta 1 (PRKCB1), mRNA |
| 7707 | 20772 | 34257 | 0.92 | 1.0E-87 | 4508788 | NT | Homo sapiens IQ motif containing GTPase activating protein 1 (IQGAP1) mRNA |
| 8307 | 21389 | 34812 | 9.93 | 1.0E-87 | AF214562.1 | NT | Homo sapiens tracheal epithelium enriched protein (PLUNC) gene, complete cds |
| 8110 | 22189 | 35732 | 0.95 | 1.0E-87 | AB022918.1 | NT | Homo sapiens mRNA for alpha2,3-sialyltransferase ST3Gal VI, complete cds |
| 8110 | 22189 | 35733 | 0.95 | 1.0E-87 | AB022918.1 | NT | Homo sapiens mRNA for alpha2,3-sialyltransferase ST3Gal VI, complete cds |
| 8933 | 22873 | 36456 | 2.92 | 1.0E-87 | BE818183.1 | EST_HUMAN | RC8-BN0278-050700-012-E02 BN0278 Homo sapiens cDNA |
| 8933 | 22873 | 36457 | 2.92 | 1.0E-87 | BE818183.1 | EST_HUMAN | RC8-BN0278-050700-012-E02 BN0278 Homo sapiens cDNA |
| 10584 | 23619 | 37225 | 0.88 | 1.0E-87 | M34426.1 | NT | Human L-plastin mRNA, 5' end |
| 10970 | 24050 | 37683 | 2.11 | 1.0E-87 | 5728867 | NT | Homo sapiens heat domain and RLD 2 (HERC2), mRNA |
| 11247 | 24316 | | 1.66 | 1.0E-87 | D10083.1 | NT | Homo sapiens RGH1 gene, retrovirus-like element |
| 12701 | 26190 | | 2.31 | 1.0E-87 | 7657832 | NT | Homo sapiens sulfotransferase-related protein (SULTX3), mRNA |
| 13228 | 25798 | 31890 | 1.22 | 1.0E-87 | AF169558.1 | NT | Homo sapiens beta-ureidopropionase (BUP1) gene, exon 9 |
| 13228 | 25798 | 31891 | 1.22 | 1.0E-87 | AF169558.1 | NT | Homo sapiens beta-ureidopropionase (BUP1) gene, exon 9 |
| 1130 | 14295 | 27350 | 8.48 | 9.0E-88 | AF167465.1 | NT | Homo sapiens double stranded RNA activated protein kinase (PKR) gene, exon 12 |
| 1380 | 14635 | 27609 | 2.94 | 9.0E-88 | AB037820.1 | NT | Homo sapiens mRNA for KIAA1389 protein, partial cds |
| 1380 | 14635 | 27610 | 2.84 | 9.0E-88 | AB037820.1 | NT | Homo sapiens mRNA for KIAA1389 protein, partial cds |
| 2189 | 16324 | 28448 | 0.99 | 9.0E-88 | 7661701 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 3717 | 16878 | 28883 | 1 | 9.0E-88 | AL163209.2 | NT | Homo sapiens ECE-1 gene (exon 9) |
| 4384 | 17527 | 30508 | 2.97 | 9.0E-88 | X91926.1 | NT | Homo sapiens ECE-1 gene (exon 9) |
| 4384 | 17527 | 30509 | 2.97 | 9.0E-88 | X91926.1 | NT | Homo sapiens X-linked anhidrotic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 8223 | 22301 | 35845 | 4.04 | 6.0E-88 | AF003528.1 | NT | Homo sapiens KIAA0093 gene product (KIAA0093), mRNA |
| 1875 | 15019 | | 1.22 | 5.0E-88 | 7661887 | NT | K9719F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone K9719 F similar to ZINC FINGER PROTEIN HZF1 |
| 2704 | 15822 | 28939 | 3.65 | 5.0E-88 | N89399.1 | EST_HUMAN | Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds |
| 3084 | 18240 | 28260 | 0.62 | 5.0E-88 | AF114488.1 | NT | |

Page 408 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 3076 | 16251 | 29272 | 0.71 | 5.0E-88 | AF114488.1 | NT | Homo sapiens Intersectin short isoform (ITSN) mRNA, complete cds |
| 3075 | 16251 | 29273 | 0.71 | 5.0E-88 | AF114488.1 | NT | Homo sapiens Intersectin short isoform (ITSN) mRNA, complete cds |
| 3476 | 16843 | | 2.78 | 5.0E-88 | AF114488.1 | EST_HUMAN | wd68h08.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2336799 3' similar to contains Alu repetitive element; contains element MER22 MER22 repetitive element; |
| 3625 | 16789 | 29806 | 0.75 | 5.0E-88 | AF114488.1 | NT | Homo sapiens Intersectin short isoform (ITSN) mRNA, complete cds |
| 4869 | 17692 | 30979 | 0.71 | 5.0E-88 | AF114488.1 | EST_HUMAN | Homo sapiens Intersectin short isoform (ITSN) mRNA, complete cds |
| 6910 | 20226 | 33856 | 2.67 | 5.0E-88 | H10932.1 | NT | Homo sapiens Intersectin short isoform (ITSN) mRNA, complete cds |
| 8114 | 21196 | 34715 | 2.67 | 5.0E-88 | AL163284.2 | NT | Homo sapiens Intersectin short isoform (ITSN) mRNA, complete cds |
| 9512 | 22577 | 38143 | 0.63 | 5.0E-88 | BF680206.1 | EST_HUMAN | Homo sapiens Intersectin short isoform (ITSN) mRNA, complete cds |
| 1360 | 14515 | 27588 | 0.96 | 4.0E-88 | BF091226.1 | EST_HUMAN | Homo sapiens Intersectin short isoform (ITSN) mRNA, complete cds |
| 1360 | 14515 | 27590 | 0.96 | 4.0E-88 | BF091226.1 | EST_HUMAN | Homo sapiens Intersectin short isoform (ITSN) mRNA, complete cds |
| 5244 | 13365 | 31333 | 0.65 | 4.0E-88 | BF070714.1 | EST_HUMAN | Homo sapiens Intersectin short isoform (ITSN) mRNA, complete cds |
| 7392 | 20470 | 33936 | 1.7 | 4.0E-88 | 11416585 | NT | Homo sapiens Intersectin short isoform (ITSN) mRNA, complete cds |
| 11160 | 24221 | 37849 | 1.64 | 4.0E-88 | 4502694 | NT | Homo sapiens Intersectin short isoform (ITSN) mRNA, complete cds |
| 11779 | 24769 | 38464 | 1.72 | 4.0E-88 | 7681947 | NT | Homo sapiens KIAA0152 gene product (KIAA0152), mRNA |
| 11779 | 24769 | 38465 | 1.72 | 4.0E-88 | 7681947 | NT | Homo sapiens KIAA0152 gene product (KIAA0152), mRNA |
| 750 | 13931 | 26974 | 1.25 | 3.0E-88 | 11548800 | NT | Homo sapiens KIAA0152 gene product (KIAA0152), mRNA |
| 1855 | 15001 | | 3.09 | 3.0E-88 | 4609020 | NT | Homo sapiens KIAA0152 gene product (KIAA0152), mRNA |
| 3013 | 16189 | 29214 | 6.08 | 3.0E-88 | N66851.1 | EST_HUMAN | Homo sapiens KIAA0152 gene product (KIAA0152), mRNA |
| 4355 | 17498 | 30477 | 0.81 | 3.0E-88 | 4501912 | NT | Homo sapiens KIAA0152 gene product (KIAA0152), mRNA |
| 4355 | 17498 | 30478 | 0.81 | 3.0E-88 | 4501912 | NT | Homo sapiens KIAA0152 gene product (KIAA0152), mRNA |
| 4800 | 17737 | | 4.81 | 3.0E-88 | 11429300 | NT | Homo sapiens KIAA0152 gene product (KIAA0152), mRNA |
| 5414 | 18816 | 31580 | 2.79 | 3.0E-88 | 11429307 | NT | Homo sapiens KIAA0152 gene product (KIAA0152), mRNA |
| 5703 | 18898 | 32188 | 3.63 | 3.0E-88 | 9966883 | NT | Homo sapiens KIAA0152 gene product (KIAA0152), mRNA |
| 6822 | 18012 | 32318 | 0.72 | 3.0E-88 | 11420697 | NT | Homo sapiens KIAA0152 gene product (KIAA0152), mRNA |
| 6290 | 19463 | 32815 | 0.84 | 3.0E-88 | 11417370 | NT | Homo sapiens KIAA0152 gene product (KIAA0152), mRNA |
| 6543 | 25826 | 33080 | 0.84 | 3.0E-88 | 11419210 | NT | Homo sapiens KIAA0152 gene product (KIAA0152), mRNA |
| 6543 | 25826 | 33081 | 0.84 | 3.0E-88 | 11419210 | NT | Homo sapiens KIAA0152 gene product (KIAA0152), mRNA |
| 7211 | 20078 | 33469 | 15.52 | 3.0E-88 | AF279295.1 | NT | Homo sapiens KIAA0152 gene product (KIAA0152), mRNA |
| 7712 | 20771 | 34203 | 6.63 | 3.0E-88 | 11436400 | NT | Homo sapiens KIAA0152 gene product (KIAA0152), mRNA |
| 8105 | 21187 | 34707 | 9.3 | 3.0E-88 | 11421728 | NT | Homo sapiens KIAA0152 gene product (KIAA0152), mRNA |
| 8390 | 21471 | 34697 | 1.58 | 3.0E-88 | AF034374.1 | NT | Homo sapiens KIAA0152 gene product (KIAA0152), mRNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 9834 | 21077 | 34589 | 2.14 | 3.0E-88 | 11526282 | NT | Homo sapiens vels avian erythroblastosis virus E28 oncogene related (ERG), mRNA |
| 10132 | 23170 | 36767 | 0.76 | 3.0E-88 | AB016228.1 | NT | Homo sapiens mRNA for RALDH2-T, complete cds |
| 10132 | 23170 | 36768 | 0.76 | 3.0E-88 | AB016228.1 | NT | Homo sapiens mRNA for RALDH2-T, complete cds |
| 10162 | 23169 | 36794 | 0.6 | 3.0E-88 | 11439095 | NT | Homo sapiens acyl-Coenzyme A dehydrogenase family, member 8 (ACAD8), mRNA |
| 12424 | 25307 | | 2.49 | 3.0E-88 | 11417974 | NT | Homo sapiens transcobalamin II, macrocyclic anemia (TCN2), mRNA |
| 12439 | 26030 | 31676 | 1.63 | 3.0E-88 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 13223 | 25706 | 31899 | 1.31 | 3.0E-88 | 11526140 | NT | Homo sapiens protease, serine, 7 (enterokinase) (PRSS7), mRNA |
| 1081 | 14227 | 27283 | 6.85 | 2.0E-88 | 7305198 | NT | Homo sapiens Caldesin, presenilin-binding protein, EF hand transcription factor (CSEN), mRNA |
| 1653 | 14808 | 27891 | 4.24 | 2.0E-88 | AF246219.1 | NT | Homo sapiens SNARE protein kinase SNAK mRNA, complete cds |
| 1789 | 14938 | 28031 | 6.83 | 2.0E-88 | AF246219.1 | NT | Homo sapiens SNARE protein kinase SNAK mRNA, complete cds |
| 3554 | 16719 | 29733 | 2.9 | 2.0E-88 | AF246219.1 | NT | Homo sapiens SNARE protein kinase SNAK mRNA, complete cds |
| 4545 | 17683 | 30685 | 1.03 | 2.0E-88 | 5031686 | NT | Homo sapiens SNARE protein kinase SNAK mRNA, complete cds |
| 6032 | 16215 | 32638 | 4.08 | 1.0E-88 | AW136566.1 | EST_HUMAN | U1H-B11-aaa-d-04-Q-U1.s1 NCI CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2718760 3' |
| 6032 | 16215 | 32637 | 4.98 | 1.0E-88 | AW136565.1 | EST_HUMAN | U1H-B11-aaa-d-04-Q-U1.s1 NCI CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2718760 3' |
| 6783 | 16938 | 33334 | 21.66 | 1.0E-88 | AB007877.1 | NT | Homo sapiens KIAA0417 mRNA, complete cds |
| 6783 | 16938 | 33335 | 21.66 | 1.0E-88 | AB007877.1 | NT | Homo sapiens KIAA0417 mRNA, complete cds |
| 7271 | 20354 | 33807 | 1.52 | 1.0E-88 | A1669034.1 | EST_HUMAN | aa54a11.s1 NCI CGAP_GCB1 Homo sapiens cDNA clone IMAGE:824732 3' similar to WP:80272.2 |
| 7334 | 20415 | 33877 | 3.7 | 1.0E-88 | AA488981.1 | EST_HUMAN | CE00851 ; |
| 8331 | 21413 | 34939 | 0.51 | 1.0E-88 | AF135183.1 | NT | Homo sapiens Recq helicase 6 (RECQ6) gene, alternative splice products, complete cds |
| 9443 | 22559 | 36122 | 0.76 | 1.0E-88 | AA190388.1 | EST_HUMAN | zp87c02.1 Stragene HeLa cell s3 837216 Homo sapiens cDNA clone IMAGE:827170 5' similar to SW:POL1_HUMAN P10266 RETROVIRUS-RELATED POL POLYPROTEIN ; |
| 9778 | 22818 | 36396 | 2.83 | 1.0E-88 | AL043314.2 | EST_HUMAN | DKFZp434N0323_t1 434 (synonym: htec3) Homo sapiens cDNA clone DKFZp434N0323 5' |
| 11730 | 23916 | 37541 | 3.35 | 1.0E-88 | AA991479.1 | EST_HUMAN | os91g03.s1 NCI CGAP_GC3 Homo sapiens cDNA clone IMAGE:1612766 3' similar to gb:M16342 |
| 12695 | 25442 | | 4.28 | 1.0E-88 | AL163246.2 | NT | HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEINS C1/C2 (HUMAN); |
| 13232 | 25900 | 31650 | 1.54 | 1.0E-88 | AW451790.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C046 |
| 11194 | 24283 | 37898 | 8.14 | 9.0E-88 | 11421238 | NT | Homo sapiens transgalin 2 (TAGLN2), mRNA |
| 2765 | 15910 | 28019 | 1.75 | 8.0E-88 | BE311657.1 | EST_HUMAN | Homo sapiens transgalin 2 (TAGLN2), mRNA |
| 7072 | 20125 | 33541 | 1.14 | 8.0E-88 | 11421514 | NT | 601142409F1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:3506186 5' |
| 446 | 13642 | 26680 | 1.41 | 7.0E-88 | 7657213 | NT | Homo sapiens similar to aema domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3A (H. sapiens) (LOC63232), mRNA |
| 446 | 13642 | 26681 | 1.41 | 7.0E-88 | 7657213 | NT | Homo sapiens homonally upregulated neu tumor-associated kinase (HUNK), mRNA |
| 5005 | 18134 | 31108 | 2.71 | 7.0E-88 | 4557390 | NT | Homo sapiens homonally upregulated neu tumor-associated kinase (HUNK), mRNA |

Table 4

Table 4
Single Exon Probes Expressed in Placenta

[illegible]

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Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 129 | 13616 | 26656 | 0.73 | 2.0E-89 | 7706870 | NT | Homo sapiens PXR2b protein (PXR2b), mRNA |
| 129 | 13616 | 26657 | 0.73 | 2.0E-89 | 7706870 | NT | Homo sapiens PXR2b protein (PXR2b), mRNA |
| 421 | 13616 | 26658 | 0.89 | 2.0E-89 | 7706870 | NT | Homo sapiens PXR2b protein (PXR2b), mRNA |
| 421 | 13616 | 26657 | 0.89 | 2.0E-89 | 7706870 | NT | Homo sapiens PXR2b protein (PXR2b), mRNA |
| 543 | 13736 | 26760 | 0.63 | 2.0E-89 | AB037763.1 | NT | Homo sapiens mRNA for KIAA1342 protein, partial cds |
| 2945 | 16122 | 29135 | 1.53 | 2.0E-89 | AJ222095.1 | EST_HUMAN | q95c08.x1 Soares_NFL_T_QBC_S1 Homo sapiens cDNA clone IMAGE:1943022 3' similar to gb:J04131 GAMMA-GLUTAMYL-TRANSPEPTIDASE 1 PRECURSOR (HUMAN); contains Alu repetitive element; |
| 4203 | 17408 | 30394 | 1.18 | 2.0E-89 | AF089897.1 | NT | Homo sapiens topoisomerase-related function protein (TRF4-2) mRNA, partial cds |
| 4269 | 17414 | 30402 | 5.14 | 2.0E-89 | X58742.1 | NT | H. sapiens HCK gene for tyrosine kinase (PTK), exons 10-11 |
| 4269 | 17414 | 30403 | 5.14 | 2.0E-89 | X58742.1 | NT | H. sapiens HCK gene for tyrosine kinase (PTK), exons 10-11 |
| 4669 | 17609 | 30587 | 1.13 | 2.0E-89 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 4619 | 17758 | 30738 | 1 | 2.0E-89 | AJ007378.1 | NT | Homo sapiens GGT gene, exon 5 |
| 5459 | 18659 | 31842 | 1.39 | 2.0E-89 | BE541744.1 | EST_HUMAN | 601065096F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3452423 5' |
| 5598 | 18793 | 32412 | 3.65 | 2.0E-89 | AB007548.1 | NT | Homo sapiens gene for LECT2, complete cds |
| 5909 | 19098 | 32412 | 1.5 | 2.0E-89 | U03985.1 | NT | Human N-ethylmaleimide-sensitive factor mRNA, partial cds |
| 6339 | 19509 | 32865 | 0.79 | 2.0E-89 | AL163286.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 7947 | 20902 | 34405 | 6.28 | 2.0E-89 | U81004.1 | NT | Human GT24 (GT24) mRNA, partial cds |
| 8119 | 21201 | 34722 | 3.11 | 2.0E-89 | 11428801 | NT | Homo sapiens solute carrier family 24 (sodium/potassium/calcium exchanger), member 2 (SLC24A2), mRNA |
| 8612 | 21692 | 35229 | 0.9 | 2.0E-89 | AJ245503.1 | NT | Homo sapiens partial mRNA for PEX3 related protein |
| 9453 | 22569 | 36139 | 0.72 | 2.0E-89 | AB037754.1 | NT | Homo sapiens mRNA for KIAA1333 protein, partial cds |
| 10015 | 23053 | 36647 | 1.22 | 2.0E-89 | AF170814.1 | NT | Homo sapiens CABP8 (CABP6) gene, exon 5 |
| 10015 | 23053 | 36648 | 1.22 | 2.0E-89 | AF170814.1 | NT | Homo sapiens CABP5 (CABP6) gene, exon 5 |
| 11855 | 24734 | 38425 | 2.63 | 2.0E-89 | 11434411 | NT | Homo sapiens integrin, alpha 3 (antigen CD49C, alpha 3 subunit of VLA-3 receptor) (ITGA3), mRNA |
| 11871 | 24859 | 38554 | 3.62 | 2.0E-89 | 11433673 | NT | Homo sapiens cell adhesion molecules with homology to L1CAM (close homologue of L1) (CHL1), mRNA |
| 12017 | 25001 | 38703 | 1.64 | 2.0E-89 | U10692.1 | NT | Human IMAGE-7 antigen (IMAGE7) pseudogene, complete cds |
| 12877 | 25584 | 38561 | 4.25 | 2.0E-89 | AF155961.1 | NT | Homo sapiens human endogenous retrovirus W gagC3.37 G gag (gag) gene, complete cds |
| 11877 | 24865 | 38561 | 6.88 | 1.0E-89 | BF190652.1 | EST_HUMAN | h81d09.x1 NCL CGAP_Ki611 Homo sapiens cDNA clone IMAGE:3134897 3' similar to TR:O54778 O54778 SOLUTE CARRIER FAMILY 22-LIKE 2 PROTEIN ; |
| 11877 | 24865 | 38562 | 6.88 | 1.0E-89 | BF190652.1 | EST_HUMAN | h81d09.x1 NCL CGAP_Ki611 Homo sapiens cDNA clone IMAGE:3134897 3' similar to TR:O54778 O54778 SOLUTE CARRIER FAMILY 22-LIKE 2 PROTEIN ; |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8422 | 21603 | 36035 | 1.07 | 9.0E-90 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 8422 | 21603 | 36036 | 1.07 | 9.0E-90 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 1088 | 14254 | 27309 | 4.38 | 8.0E-90 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 1089 | 14254 | 27309 | 2.91 | 8.0E-90 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 1361 | 16035 | 27591 | 3.26 | 8.0E-90 | BE670561.1 | EST_HUMAN | 7c36f08.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3284683 3' |
| 1361 | 16035 | 27592 | 3.26 | 8.0E-90 | BE670561.1 | EST_HUMAN | 7c36f08.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3284683 3' |
| 8767 | 21838 | 36377 | 0.8 | 8.0E-90 | BE177830.1 | EST_HUMAN | RC1-HT0588-120400-022-608 HT0588 Homo sapiens cDNA |
| 10939 | 24021 | 37654 | 1.38 | 8.0E-90 | A1222095.1 | EST_HUMAN | q98c08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1843022 3' similar to gb.J04131 GAMMA-GLUTAMYLTRANSFERASE 1 PRECURSOR (HUMAN); contains Alu repetitive element; |
| 10939 | 24021 | 37655 | 1.38 | 8.0E-90 | A1222095.1 | EST_HUMAN | q98c08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1843022 3' similar to gb.J04131 GAMMA-GLUTAMYLTRANSFERASE 1 PRECURSOR (HUMAN); contains Alu repetitive element; |
| 859 | 14036 | | 6.81 | 7.0E-90 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cde, alternatively spliced |
| 8619 | 21699 | | 2.14 | 7.0E-90 | AA782977.1 | EST_HUMAN | el83d08.s1 Soares_testis_NHT Homo sapiens cDNA clone 1375503 3' |
| 9168 | 22244 | 36787 | 2.13 | 7.0E-90 | BE962526.2 | EST_HUMAN | 601655837R1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3855824 3' |
| 9168 | 22244 | 36788 | 2.13 | 7.0E-90 | BE962525.2 | EST_HUMAN | 601655837R1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3855824 3' |
| 10220 | 23256 | 36844 | 0.46 | 7.0E-90 | AW273794.1 | EST_HUMAN | X124a02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2814028 3' |
| 10340 | 23375 | 36985 | 4.2 | 7.0E-90 | H68849.1 | EST_HUMAN | yf66e04.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:212190 3' similar to SP:C1TC HUMAN P11586 C-1-TETRAHYDROFOLATE SYNTHASE, CYTOPLASMIC; |
| 10340 | 23375 | 36986 | 4.2 | 7.0E-90 | H68849.1 | EST_HUMAN | yf66e04.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:212190 3' similar to SP:C1TC HUMAN P11586 C-1-TETRAHYDROFOLATE SYNTHASE, CYTOPLASMIC; |
| 10372 | 23708 | 37314 | 0.82 | 7.0E-90 | BF526089.1 | EST_HUMAN | 602071208F1 NCL_CGAP_Bnt64 Homo sapiens cDNA clone IMAGE:4214257 5' |
| 3136 | 16312 | 29324 | 1.16 | 6.0E-90 | X91926.1 | NT | H. sapiens ECE-1 gene (exon 6) |
| 3136 | 16312 | 29325 | 1.16 | 6.0E-90 | X91926.1 | NT | H. sapiens ECE-1 gene (exon 6) |
| 4342 | 17485 | 30467 | 11.21 | 6.0E-90 | 8822398 | NT | Homo sapiens hypothetical protein FLJ10388 (FLJ10388), mRNA |
| 4342 | 17485 | 30468 | 11.21 | 6.0E-90 | 8822398 | NT | Homo sapiens hypothetical protein FLJ10388 (FLJ10388), mRNA |
| 6105 | 19285 | 32618 | 2.84 | 6.0E-90 | U77700.1 | NT | Homo sapiens HsGCN1 mRNA, partial cds |
| 6105 | 19285 | 32619 | 2.84 | 6.0E-90 | U77700.1 | NT | Homo sapiens HsGCN1 mRNA, partial cds |
| 8522 | 21603 | 35140 | 4.01 | 6.0E-90 | 4504794 | NT | Homo sapiens Inositol 1,4,5-triphosphate receptor, type 3 (ITPR3) mRNA |
| 8522 | 21603 | 35141 | 4.01 | 6.0E-90 | 4504794 | NT | Homo sapiens Inositol 1,4,5-triphosphate receptor, type 3 (ITPR3) mRNA |
| 159 | 13384 | | 27.59 | 6.0E-90 | AB036344.1 | NT | Homo sapiens TCL6 gene, exon 1-10b |
| 1219 | 14380 | 27439 | 6.22 | 5.0E-90 | U80226.1 | NT | Human gamma-aminobutyric acid transaminase mRNA, partial cds |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 1864 | 15010 | 28116 | 1.07 | 5.0E-90 | AI222095.1 | EST_HUMAN | q99608.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1843022 3' similar to gb:J04131 GAMMA-GLUTAMYLTRANSFERASE 1 PRECURSOR (HUMAN); contains Alu repetitive element; |
| 1864 | 15010 | 28117 | 1.07 | 5.0E-90 | AI222095.1 | EST_HUMAN | q99608.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1843022 3' similar to gb:J04131 GAMMA-GLUTAMYLTRANSFERASE 1 PRECURSOR (HUMAN); contains Alu repetitive element; |
| 2822 | 15745 | 28859 | 2.37 | 5.0E-90 | AF114487.1 | NT | Homo sapiens intercalin long isoform (ITSN) mRNA, complete cds |
| 4882 | 17797 | 30784 | 4.61 | 6.0E-90 | 4508364 | NT | Homo sapiens pregnancy-zone protein (PZP) mRNA |
| 4883 | 17818 | 30806 | 0.78 | 5.0E-90 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 5708 | 18901 | 32198 | 2.85 | 6.0E-90 | Z18411.1 | NT | H. sapiens mRNA encoding phospholipase o |
| 5728 | 18919 | | 0.72 | 5.0E-90 | AF008916.1 | NT | Homo sapiens EV16 homolog mRNA, complete cds |
| 5810 | 19000 | 32307 | 1.32 | 6.0E-90 | AB015617.1 | NT | Homo sapiens ELKS mRNA, complete cds |
| 5888 | 18801 | 32198 | 1.88 | 6.0E-90 | Z18411.1 | NT | H. sapiens mRNA encoding phospholipase c |
| 6869 | 20021 | 33430 | 0.85 | 5.0E-90 | 9910365 | NT | Homo sapiens Carbonic anhydrase-related protein 10 (LOC56934), mRNA |
| 6869 | 20021 | 33431 | 0.85 | 5.0E-90 | 9910365 | NT | Homo sapiens Carbonic anhydrase-related protein 10 (LOC56934), mRNA |
| 7364 | 20443 | 33905 | 2.04 | 6.0E-90 | AF113708.1 | NT | Homo sapiens angiotensin 4 (ANG4) mRNA, partial cds |
| 7364 | 20443 | 33906 | 2.04 | 6.0E-90 | AF113708.1 | NT | Homo sapiens angiotensin 4 (ANG4) mRNA, partial cds |
| 7736 | 20767 | 34286 | 7.98 | 6.0E-90 | 4657288 | NT | Homo sapiens adenylate cyclase 9 (ADCY9) mRNA |
| 8488 | 21689 | 36107 | 4.89 | 6.0E-90 | 11345483 | NT | Homo sapiens hypothetical protein FLJ13222 (FLJ13222), mRNA |
| 9882 | 22822 | 36506 | 1.17 | 5.0E-90 | | NT | Homo sapiens similar to ectonucleotide pyrophosphatase/phosphodiesterase 3 (H. sapiens) (LOC883214), mRNA |
| 10488 | 23523 | 37133 | 0.71 | 5.0E-90 | AF123303.1 | NT | Homo sapiens calcium-binding transporter mRNA, partial cds |
| 10663 | 23697 | 37306 | 9.66 | 5.0E-90 | 11433721 | NT | Homo sapiens ATPase, aminophospholipid transporter-like, Class I, type 8A, member 2 (ATP8A2), mRNA |
| 10723 | 23766 | 37362 | 0.53 | 5.0E-90 | 7682051 | NT | Homo sapiens KIAA0317 gene product (KIAA0317), mRNA |
| 10723 | 23766 | 37363 | 0.53 | 5.0E-90 | 7682051 | NT | Homo sapiens KIAA0317 gene product (KIAA0317), mRNA |
| 12948 | 25659 | | 1.77 | 6.0E-90 | AB011399.1 | NT | Homo sapiens gene for AF-8, complete cds |
| 13000 | 25649 | | 4.54 | 5.0E-90 | AI623366.1 | EST_HUMAN | ar76h05.x1 Barsstead aorta HPLR89 Homo sapiens cDNA clone IMAGE:2128761 3' |
| 313 | 13529 | 26562 | 2.04 | 4.0E-90 | AF231920.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 313 | 13529 | 26563 | 2.04 | 4.0E-90 | AF231920.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 1110 | 14275 | 27332 | 4.36 | 4.0E-90 | 4505316 | NT | Homo sapiens myosin phosphatase, target subunit 1 (MYPT1), mRNA |
| 1724 | 14874 | 27968 | 13.42 | 4.0E-90 | X98033.1 | NT | H. sapiens gene encoding discoidin receptor tyrosine kinase, exon 16 |
| 2923 | 16101 | 29114 | 0.74 | 4.0E-90 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 2923 | 16101 | 29115 | 0.74 | 4.0E-90 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |

Page 412 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 3088 | 18264 | 29281 | 0.93 | 4.0E-90 | 6808918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 3088 | 18284 | 29282 | 0.93 | 4.0E-90 | 6808918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 4779 | 17914 | 30800 | 3.63 | 4.0E-90 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 4819 | 18049 | 31037 | 2.1 | 4.0E-90 | AB033070.1 | NT | Homo sapiens mRNA for KIAA1244 protein, partial cds |
| 4839 | 18069 | 31047 | 1.91 | 4.0E-90 | M85967.1 | NT | Human prothrombin converting enzyme (NEC2) gene, exon 8 |
| 12855 | 16101 | 29114 | 1.74 | 4.0E-90 | 6808918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 12855 | 16101 | 29115 | 1.74 | 4.0E-90 | 6808918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 8038 | 21119 | 34638 | 0.91 | 3.0E-90 | BF516168.1 | EST_HUMAN | UIH-BW1-amy-b-04-Q-U1.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3083839 3' |
| 8038 | 21119 | 34639 | 0.81 | 3.0E-90 | BF516168.1 | EST_HUMAN | UIH-BW1-amy-b-04-Q-U1.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3083839 3' |
| 11830 | 24916 | 38619 | 28.7 | 3.0E-90 | BE538833.1 | EST_HUMAN | 601335244F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3689147 5' |
| 220 | 13442 | 28473 | 4.5 | 2.0E-90 | BE537913.1 | EST_HUMAN | 601087378F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3463834 5' |
| 1200 | 14362 | 27421 | 6.48 | 2.0E-90 | 5031748 | NT | Homo sapiens high-mobility group (nonhistone chromosomal) protein 17 (HMG17), mRNA |
| 1200 | 14362 | 27422 | 6.48 | 2.0E-90 | 5031748 | NT | Homo sapiens high-mobility group (nonhistone chromosomal) protein 17 (HMG17), mRNA |
| 3948 | 17108 | 30103 | 2.95 | 2.0E-90 | A1138213.1 | EST_HUMAN | similar to SW:OLP3_MOUSE P23275 OLFACTORY RECEPTOR OR3. ; |
| 4811 | 17944 | 30930 | 1.05 | 2.0E-90 | AB006627.1 | NT | Homo sapiens mRNA for KIAA0289 gene, partial cds |
| 5029 | 18158 | 31735 | 10.16 | 2.0E-90 | 5729855 | NT | Homo sapiens GRB2-related adaptor protein (GRAP) mRNA |
| 5896 | 18084 | 32395 | 0.6 | 2.0E-90 | 11526801 | NT | Homo sapiens Rap2 interacting protein 8 (RPIP8), mRNA |
| 5896 | 18084 | 32396 | 0.6 | 2.0E-90 | 11526801 | NT | Homo sapiens Rap2 interacting protein 8 (RPIP8), mRNA |
| 5803 | 19092 | 32406 | 3.89 | 2.0E-90 | AW672686.1 | EST_HUMAN | ba49d05.y3 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2869881 5' similar to TR:076208 075208 HYPOTHETICAL 35.5 KD PROTEIN. ; |
| 9893 | 23032 | 36623 | 0.99 | 2.0E-90 | 11427320 | NT | Homo sapiens similar to laminin receptor 1 (67kD, ribosomal protein SA) (H. sapiens) (LOC83484), mRNA |
| 9893 | 23032 | 36624 | 0.99 | 2.0E-90 | 11427320 | NT | Homo sapiens similar to laminin receptor 1 (67kD, ribosomal protein SA) (H. sapiens) (LOC83484), mRNA |
| 10165 | 23202 | 36795 | 1.46 | 2.0E-90 | AU118985.1 | EST_HUMAN | AU118985 HEMBA1 Homo sapiens cDNA clone HEMBA1004795 5' |
| 10165 | 23202 | 36796 | 1.46 | 2.0E-90 | AU118985.1 | EST_HUMAN | AU118985 HEMBA1 Homo sapiens cDNA clone HEMBA1004795 5' |
| 11758 | 23944 | 37571 | 3.06 | 2.0E-90 | 11024711 | NT | Homo sapiens myosin, heavy polypeptide 4, skeletal muscle (MYH4), mRNA |
| 287 | 13505 | 26539 | 4.1 | 1.0E-90 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nepril-II, Alzheimer disease) (APP), mRNA |
| 385 | 15983 | 26628 | 2.28 | 1.0E-90 | AF231920.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 386 | 15983 | 26628 | 1.56 | 1.0E-90 | AF231920.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 713 | 13895 | 26932 | 1.92 | 1.0E-90 | AJ237589.1 | NT | Homo sapiens mRNA for T-box transcription factor (TBX20 gene), partial |
| 713 | 13895 | 26933 | 1.92 | 1.0E-90 | AJ237589.1 | NT | Homo sapiens mRNA for T-box transcription factor (TBX20 gene), partial |

Page 413 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 748 | 13929 | 26971 | 17.93 | 1.0E-90 | AF264750.1 | NT | Homo sapiens ALR-like protein mRNA, partial cds |
| 748 | 13929 | 26972 | 17.93 | 1.0E-90 | AF264750.1 | NT | Homo sapiens ALR-like protein mRNA, partial cds |
| 1134 | 14299 | | 2.25 | 1.0E-90 | 4507828 | NT | Homo sapiens Kruppel-like factor 7 (ubiquitous) (KLF7), mRNA |
| 1334 | 14491 | 27560 | 3.46 | 1.0E-90 | AF068154.1 | NT | Homo sapiens protein phosphatase 2A BR gamma subunit gene, exon 3 |
| 1334 | 14491 | 27561 | 3.46 | 1.0E-90 | AF068154.1 | NT | Homo sapiens protein phosphatase 2A BR gamma subunit gene, exon 3 |
| 1701 | 14853 | | 2.61 | 1.0E-90 | BE378884.1 | EST_HUMAN | 6011595632 NIH_MGC_63 Homo sapiens cDNA clone IMAGE:351118 5' |
| 1951 | 15094 | 28185 | 3.73 | 1.0E-90 | 11420514 | NT | Homo sapiens similar to SALL1 (sal (Drosophila))-like (LOC57167), mRNA |
| 2816 | 16093 | 29106 | 6.48 | 1.0E-90 | 6005720 | NT | Homo sapiens chromosome 8 open reading frame 2 (ORF2), mRNA |
| 3954 | 17112 | 30112 | 0.59 | 1.0E-90 | AB020710.1 | NT | Homo sapiens mRNA for KIAA0903 protein, partial cds |
| 3954 | 17112 | 30113 | 0.59 | 1.0E-90 | AB020710.1 | NT | Homo sapiens mRNA for KIAA0903 protein, partial cds |
| 4543 | 17681 | 30863 | 1.68 | 1.0E-90 | AF167340.1 | NT | Homo sapiens soluble interleukin 1 receptor accessory protein (IL1RAP) gene, exon 8, alternative exons 9 and complete cds, alternatively spliced |
| 5792 | 18983 | 32286 | 2.08 | 1.0E-90 | AB014533.1 | NT | Homo sapiens mRNA for KIAA0633 protein, partial cds |
| 5959 | 19145 | 32460 | 0.9 | 1.0E-90 | 11426910 | NT | Homo sapiens KIAA0623 gene product (KIAA0623), mRNA |
| 7220 | 20085 | 33500 | 0.73 | 1.0E-90 | U91634.1 | NT | Human retina-derived POU-domain factor-1 mRNA, complete cds |
| 7849 | 20904 | 34408 | 2.31 | 1.0E-90 | 11426758 | NT | Homo sapiens solute carrier family 1 (high affinity aspartate/glutamate transporter), member 8 (SLC1A6), mRNA |
| 9021 | 22100 | 35640 | 3 | 1.0E-90 | 11422088 | NT | Homo sapiens brefeldin A-inhibited guanine nucleotide-exchange protein 2 (BIG2), mRNA |
| 9493 | 22550 | | 0.92 | 1.0E-90 | AF163864.1 | NT | Homo sapiens SNCA isoform (SNCA) gene, complete cds, alternatively spliced |
| 9516 | 22581 | 35148 | 1.4 | 1.0E-90 | 11422109 | NT | Homo sapiens CGI-16 protein (LOC51008), mRNA |
| 9516 | 22581 | 35149 | 1.4 | 1.0E-90 | 11422108 | NT | Homo sapiens CGI-16 protein (LOC51008), mRNA |
| 4313 | 17456 | 30444 | 8.29 | 8.0E-91 | D12234.1 | EST_HUMAN | Homo sapiens CG1-15 protein (LOC51008), mRNA |
| 8501 | 21682 | 35118 | 1.14 | 7.0E-91 | 11419234 | NT | HUM0005381 Liver HepG2 cell line. Homo sapiens cDNA clone s381 3' |
| 10507 | 23542 | 37193 | 0.65 | 7.0E-91 | AJ904151.1 | EST_HUMAN | Homo sapiens makorin, ring finger protein, 1 (MKRN1), mRNA |
| 3563 | 16726 | 28744 | 1.85 | 5.0E-91 | AA702794.1 | EST_HUMAN | CM-BT043-090299-075 BT043 Homo sapiens cDNA |
| 4639 | 17775 | 30765 | 1.14 | 5.0E-91 | AJ143539.1 | EST_HUMAN | 250504.61 Soares, fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:448018 3' |
| 4639 | 17775 | 30766 | 1.14 | 5.0E-91 | AJ143539.1 | EST_HUMAN | AU143539 Y79AA1 Homo sapiens cDNA clone Y79AA1002087 5' |
| 4930 | 18060 | 31042 | 0.67 | 5.0E-91 | 7110634 | NT | AU143539 Y79AA1 Homo sapiens cDNA clone Y79AA1002087 5' |
| 4930 | 18060 | 31043 | 0.67 | 5.0E-91 | 7110634 | NT | Homo sapiens chromosome 22 open reading frame 5 (C22ORF5), mRNA |
| 6760 | 19906 | 33300 | 1.25 | 5.0E-91 | AJ879995.1 | EST_HUMAN | Homo sapiens chromosome 22 open reading frame 5 (C22ORF5), mRNA |
| 8400 | 21481 | 35009 | 1.33 | 5.0E-91 | BF314682.1 | EST_HUMAN | eu4909.x1 Schnelder fetal brain 00004 Homo sapiens cDNA clone IMAGE:2518121 3' similar to SW:ASPG_FLAME Q47688 N4-(BETA-N-ACETYL-GLUCOSAMINYL)-L-ASPARAGINASE PRECURSOR |
| 8960 | 22039 | 35981 | 1.47 | 5.0E-91 | AV649878.1 | EST_HUMAN | 601601624F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4130933 5' |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 8860 | 22039 | 35582 | 1.47 | 5.0E-91 | AV649878.1 | EST_HUMAN | AV649878 GLC Homo sapiens cDNA clone GLC8YF08.3' |
| 12871 | 25631 | | 1.61 | 5.0E-91 | AI193568.1 | EST_HUMAN | q07011.x1 Soares_fetal_lung_NHL-19W Homo sapiens cDNA clone IMAGE:1744365.3' similar to contains MIR b2 MIR MIR repulsive element; |
| 3272 | 16446 | 29466 | 1.58 | 4.0E-91 | AF156776.1 | NT | Homo sapiens lysophosphatidic acid acyltransferase-delta (LPAAT-delta) mRNA, complete cds |
| 3272 | 16446 | 29466 | 1.58 | 4.0E-91 | AF156776.1 | NT | Homo sapiens lysophosphatidic acid acyltransferase-delta (LPAAT-delta) mRNA, complete cds |
| 11171 | 24242 | 37875 | 3.22 | 4.0E-91 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 12376 | 26287 | 32074 | 3.27 | 4.0E-91 | M77994.1 | EST_HUMAN | EST01578 Hippocampus, Stratum (cat. #36205) Homo sapiens cDNA clone HHCMC60 similar to Retrovirus-related gag polyprotein |
| 12376 | 26287 | 32119 | 3.27 | 4.0E-91 | M77994.1 | EST_HUMAN | EST01578 Hippocampus, Stratum (cat. #36205) Homo sapiens cDNA clone HHCMC60 similar to Retrovirus-related gag polyprotein |
| 12885 | 25457 | 32019 | 1.16 | 4.0E-91 | M77694.1 | EST_HUMAN | EST01578 Hippocampus, Stratum (cat. #36205) Homo sapiens cDNA clone HHCMC60 similar to Retrovirus-related gag polyprotein |
| 12885 | 25457 | 32020 | 1.16 | 4.0E-91 | M77694.1 | EST_HUMAN | EST01578 Hippocampus, Stratum (cat. #36205) Homo sapiens cDNA clone HHCMC60 similar to Retrovirus-related gag polyprotein |
| 1847 | 14800 | 27885 | 2.17 | 3.0E-91 | 11430183 | NT | Homo sapiens solute carrier family 4, anion exchanger, member 3 (SLC4A3) mRNA |
| 1847 | 14800 | 27885 | 2.17 | 3.0E-91 | 11430183 | NT | Homo sapiens solute carrier family 4, anion exchanger, member 3 (SLC4A3) mRNA |
| 1832 | 15993 | 28077 | 1.1 | 3.0E-91 | AF265555.1 | NT | Homo sapiens ubiquitin-conjugating BIR-domain enzyme APOLLON mRNA, complete cds |
| 3420 | 15889 | 28605 | 1.29 | 3.0E-91 | AL163283.2 | NT | Homo sapiens chromosome 21 segment HS21C083 |
| 3651 | 16716 | 29729 | 4.85 | 3.0E-91 | AB033104.1 | NT | Homo sapiens mRNA for KIAA1278 protein, partial cds |
| 3651 | 16716 | 29729 | 4.85 | 3.0E-91 | AB033104.1 | NT | Homo sapiens mRNA for KIAA1278 protein, partial cds |
| 3688 | 17047 | 30047 | 0.93 | 3.0E-91 | AF084630.1 | NT | Homo sapiens cyclin-D binding Myb-like protein mRNA, complete cds |
| 4714 | 17949 | 30832 | 4.41 | 3.0E-91 | M30938.1 | NT | Human Ku (p70/p80) subunit mRNA, complete cds |
| 5094 | 18222 | 31193 | 1.48 | 3.0E-91 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 5094 | 18222 | 31194 | 1.48 | 3.0E-91 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 5803 | 18993 | 32298 | 3.55 | 3.0E-91 | 11434984 | NT | Homo sapiens epididymal secretory protein (19.5kD) (HE1), mRNA |
| 6434 | 18602 | | 2.56 | 3.0E-91 | 4602740 | NT | Homo sapiens cyclin-dependent kinase 8 (CDK8) mRNA |
| 6713 | 19871 | 33282 | 2.98 | 3.0E-91 | 11497611 | NT | Homo sapiens gamma-aminobutylic acid (GABA) B receptor, 1 (GABBR1), transcript variant 2, mRNA |
| 6713 | 19871 | 33283 | 2.98 | 3.0E-91 | 11497611 | NT | Homo sapiens gamma-aminobutylic acid (GABA) B receptor, 1 (GABBR1), transcript variant 2, mRNA |
| 7816 | 20871 | 34368 | 4.48 | 3.0E-91 | U86939.1 | NT | Human L-type calcium channel beta-1 subunit (CACNLB1) gene, exons 10 and 11 |
| 7816 | 20871 | 34369 | 4.48 | 3.0E-91 | U86939.1 | NT | Human L-type calcium channel beta-1 subunit (CACNLB1) gene, exons 10 and 11 |
| 8132 | 21214 | 34755 | 0.69 | 3.0E-91 | 6601688 | NT | Homo sapiens arkyrin-like with transmembrane domains 1 (ANKTM1), mRNA |
| 8970 | 27048 | 35592 | 2.73 | 3.0E-91 | D16484.1 | NT | Human mRNA for very low density lipoprotein receptor, complete cds |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 9488 | 22545 | 38108 | 0.73 | 3.0E-91 | AB011168.1 | NT | Homo sapiens mRNA for KIAA0594 protein, partial cds |
| 11480 | 24539 | 38207 | 1.49 | 3.0E-91 | AB028003.1 | NT | Homo sapiens mRNA for KIAA1080 protein, partial cds |
| 11480 | 24539 | 38208 | 1.49 | 3.0E-91 | AB029003.1 | NT | Homo sapiens mRNA for KIAA1080 protein, partial cds |
| 13037 | 18486 | 31430 | 8.54 | 3.0E-91 | AF189595.1 | NT | Homo sapiens beta-ureidopropionase (BUP1) gene, exon 6 |
| 13037 | 18486 | 31431 | 8.54 | 3.0E-91 | AF169555.1 | NT | Homo sapiens beta-ureidopropionase (BUP1) gene, exon 6 |
| 49 | 13288 | 26300 | 2.94 | 1.0E-91 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 1274 | 14431 | 27502 | 2.74 | 1.0E-91 | AW449746.1 | EST_HUMAN | U1H-B13-eks-d-01-0-UI.91 NCJ CGAP Sub5 Homo sapiens cDNA clone IMAGE:2735280 3' |
| 5529 | 18726 | 31742 | 0.78 | 1.0E-91 | 11434402 | NT | Homo sapiens hypothetical protein PRO1855 (PRO1855), mRNA |
| 6883 | 20211 | 33640 | 1.98 | 1.0E-91 | BF348182.1 | EST_HUMAN | 602022088F1 NCJ CGAP Brn67 Homo sapiens cDNA clone IMAGE:4157804 5' |
| 6883 | 20211 | 33641 | 1.98 | 1.0E-91 | BF348182.1 | EST_HUMAN | 602022088F1 NCJ CGAP Brn67 Homo sapiens cDNA clone IMAGE:4157804 5' |
| 12130 | 26110 | 36814 | 1.48 | 1.0E-91 | AV763053.1 | EST_HUMAN | AV763053 MDS Homo sapiens cDNA clone MDSBEC05 5' |
| 12540 | 26114 | | 1.5 | 1.0E-91 | H16212.1 | EST_HUMAN | Yn30ed3.r1 Soares Infant brain T1B1B Homo sapiens cDNA clone IMAGE:46687 5' |
| 1270 | 14428 | 27498 | 5.77 | 9.0E-92 | AJ001689.1 | NT | Homo sapiens NKG2D gene, exon 10 |
| 1270 | 14428 | 27497 | 5.77 | 9.0E-92 | AJ001689.1 | NT | Homo sapiens NKG2D gene, exon 10 |
| 5309 | 18428 | 31398 | 0.86 | 9.0E-92 | AB020640.1 | NT | Homo sapiens mRNA for KIAA0833 protein, partial cds |
| 5579 | 18774 | 31820 | 5.86 | 9.0E-92 | J03007.1 | NT | Human Na ⁺ K ⁺ ATPase alpha-subunit mRNA, partial cds |
| 6722 | 18916 | 32210 | 2.62 | 9.0E-92 | 11427149 | NT | Homo sapiens hypothetical protein FLJ20280 (FLJ20280), mRNA |
| 6583 | 19745 | 33127 | 3.77 | 9.0E-92 | AF310105.1 | NT | Homo sapiens NALP1 mRNA, complete cds |
| 8041 | 21124 | 34644 | 0.55 | 9.0E-92 | AJ250566.1 | NT | Homo sapiens partial TM4SF2 gene for tetraspanin protein, exon 5 |
| 8041 | 21124 | 34645 | 0.55 | 9.0E-92 | AJ250566.1 | NT | Homo sapiens partial TM4SF2 gene for tetraspanin protein, exon 5 |
| 8569 | 21650 | 35191 | 1.53 | 9.0E-92 | AB040945.1 | NT | Homo sapiens mRNA for KIAA1512 protein, partial cds |
| 8569 | 21650 | 35192 | 1.53 | 9.0E-92 | AB040945.1 | NT | Homo sapiens mRNA for KIAA1512 protein, partial cds |
| 9474 | 22531 | 36095 | 1.83 | 9.0E-92 | 11422086 | NT | Homo sapiens brefeldin A-inhibited guanine nucleotide-exchange protein 2 (BIG2), mRNA |
| 95 | 13330 | 28357 | 6.63 | 8.0E-92 | W26367.1 | EST_HUMAN | 2613 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA |
| 298 | 13513 | 28547 | 3.09 | 8.0E-92 | BE386363.1 | EST_HUMAN | 601273513F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3614687 5' |
| 1868 | 18012 | 28119 | 1.43 | 8.0E-92 | 11434722 | NT | Homo sapiens diacylglycerol kinase, gamma (DGK), mRNA |
| 1868 | 18012 | 28120 | 1.43 | 8.0E-92 | 11434722 | NT | Homo sapiens diacylglycerol kinase, gamma (DGK), mRNA |
| 5508 | 18707 | 31722 | 0.63 | 8.0E-92 | AB046820.1 | NT | Homo sapiens mRNA for KIAA1600 protein, partial cds |
| | | | | | | NT | Homo sapiens FYVE domain-containing dual specificity protein phosphatase FYVE-DSP2 mRNA, complete cds |
| 5015 | 18809 | 31877 | 0.8 | 8.0E-92 | AF284717.1 | NT | Homo sapiens MCP-4 gene |
| 6877 | 19838 | 33225 | 1.28 | 8.0E-92 | AJ000919.1 | NT | Homo sapiens DNA polymerase zeta catalytic subunit variant 1 (REV3L) mRNA, complete cds |
| 6880 | 19839 | 33228 | 0.81 | 8.0E-92 | AF179428.1 | NT | Homo sapiens AIM-1 protein (LOC51151), mRNA |
| 8283 | 21365 | | 0.55 | 8.0E-92 | 11416961 | NT | Homo sapiens lens membrane protein (mp18) gene, exon 11 |
| 8620 | 21700 | 35235 | 5.05 | 8.0E-92 | L04183.1 | NT | |

Page 416 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|-----------------------------|-------------------------------|--|
| 8620 | 21700 | 35236 | 5.05 | 8.0E-92 | L04183.1 | NT | Human lens membrane protein (mp19) gene, exon 11 |
| 8721 | 21601 | 35337 | 0.71 | 8.0E-92 | 11426569 | NT | Homo sapiens transcription termination factor, RNA polymerase II (TTF2), mRNA |
| 9262 | 22339 | 35889 | 2.63 | 8.0E-92 | AB014511.1 | NT | Homo sapiens mRNA for KIAA0611 protein, partial cds |
| 10232 | 23267 | 36857 | 0.91 | 8.0E-92 | Y13629.1 | NT | Homo sapiens mRNA for MBNL protein |
| 11043 | 24121 | 37755 | 2.86 | 8.0E-92 | AF074393.1 | NT | Homo sapiens nuclear mitogen- and stress-activated protein kinase-1 (MSK1) mRNA, complete cds |
| 11642 | 24722 | 38415 | 1.93 | 8.0E-92 | 4503340 | NT | Homo sapiens dihydrodipicamide S-succinyltransferase (E2 component of 2-oxo-glutarate complex) (DLST) mRNA |
| 12740 | 25491 | 32028 | 1.59 | 8.0E-92 | 11434704 | NT | Homo sapiens fragile X mental retardation, autosomal homolog 1 (FXR1), mRNA |
| 68 | 13305 | 26328 | 1.91 | 7.0E-92 | M80676.1 | NT | Human von Willebrand factor pseudogene corresponding to exons 23 through 34 |
| 246 | 16008 | 26468 | 1.71 | 7.0E-92 | AB018301.1 | NT | Homo sapiens mRNA for KIAA0758 protein, partial cds |
| 246 | 16008 | 26489 | 1.71 | 7.0E-92 | AB018301.1 | NT | Homo sapiens cytoplasmic Sepsis truncated isoform mRNA, complete cds |
| 604 | 13193 | 27533 | 1.94 | 7.0E-92 | AF007822.1 | NT | Homo sapiens B-cell CLL/lymphoma 7b (BCCL7B) mRNA |
| 1309 | 14465 | 27533 | 1.94 | 7.0E-92 | 4502364 | NT | Homo sapiens ARP2 (actin-related protein 2, yeast) homolog (ACTR2), mRNA |
| 2260 | 15393 | 28519 | 3.85 | 7.0E-92 | 5031570 | NT | Homo sapiens ARP2 (actin-related protein 2, yeast) homolog (ACTR2), mRNA |
| 2260 | 15393 | 28520 | 3.85 | 7.0E-92 | 5031570 | NT | Homo sapiens ARP2 (actin-related protein 2, yeast) homolog (ACTR2), mRNA |
| 2830 | 15753 | 28688 | 6.13 | 7.0E-92 | AF167706.1 | NT | Homo sapiens cyclin-like repeat-containing protein S62 precursor, mRNA, complete cds |
| 2787 | 15903 | 29010 | 6.84 | 7.0E-92 | 6005738 | NT | Homo sapiens NRAS-related gene (D1S1685), mRNA |
| 3426 | 18466 | 29609 | 0.7 | 7.0E-92 | 4507800 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 3426 | 18466 | 29610 | 0.7 | 7.0E-92 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 4710 | 17845 | 30828 | 1.19 | 7.0E-92 | S71824.1 | NT | N-GAM-145 kDa neural cell adhesion molecule [human, small cell lung cancer cell line OS2-R, mRNA, 2860 nt] |
| 4710 | 17845 | 30829 | 1.19 | 7.0E-92 | S71824.1 | NT | N-GAM-145 kDa neural cell adhesion molecule [human, small cell lung cancer cell line OS2-R, mRNA, 2860 nt] |
| 5284 | 18403 | 31371 | 0.98 | 7.0E-92 | 4508118 | NT | Homo sapiens prospero-related homeobox 1 (PROX1) mRNA |
| 5375 | 18578 | 31446 | 6.51 | 7.0E-92 | AA446208.1 | EST_HUMAN | zw66d12.1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:781175 5' |
| 2178 | 15313 | 28441 | 0.98 | 3.0E-92 | 11434814 | NT | Homo sapiens Machado-Joseph disease (spinocerebellar ataxia 3, autosomal dominant, ataxin 3) (MJD), mRNA |
| 2178 | 15313 | 28442 | 0.98 | 3.0E-92 | 11434814 | NT | Homo sapiens Machado-Joseph disease (spinocerebellar ataxia 3, autosomal dominant, ataxin 3) (MJD), mRNA |
| 2824 | 16938 | 29048 | 2.74 | 3.0E-92 | BE609714.1 | EST_HUMAN | 601501242F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3902839 5' |
| 5997 | 19182 | 32504 | 3.96 | 3.0E-92 | AA378336.1 | EST_HUMAN | EST191020 Synovial sarcoma Homo sapiens cDNA 5' end similar to ribosomal protein S13 |
| 11002 | 24081 | 37716 | 3.26 | 3.0E-92 | X15804.1 | NT | Human mRNA for alpha-actinin |
| 11002 | 24081 | 37717 | 3.26 | 3.0E-92 | X15804.1 | NT | Human mRNA for alpha-actinin |

Page 417 of 550
Table 4
Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 12878 | 28168 | | 1.67 | 3.0E-92 | BF387138.1 | EST_HUMAN | RC1-GN0021-240800-012-a11 GN0021 Homo sapiens cDNA |
| 26 | 13264 | 26266 | 1.64 | 2.0E-92 | 4501898 | NT | Homo sapiens actin A receptor, type IIB (ACVR2B) mRNA |
| 183 | 13405 | 26433 | 4.28 | 2.0E-92 | 11422948 | NT | Homo sapiens hypothetical protein dJ462023.2 (Dj462023.2), mRNA |
| 183 | 13405 | 26434 | 4.28 | 2.0E-92 | 11422846 | NT | Homo sapiens hypothetical protein dJ462023.2 (Dj462023.2), mRNA |
| 768 | 13949 | 26897 | 5.49 | 2.0E-92 | BE289190.1 | EST_HUMAN | 601118337F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3028304 5' |
| 768 | 13949 | 26898 | 5.49 | 2.0E-92 | BE289190.1 | EST_HUMAN | 601118337F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3028304 5' |
| 1752 | 14801 | | 1.62 | 2.0E-92 | S78653.1 | NT | mrg-mnas-related [human, Genomic, 2416 nt] |
| 1990 | 15132 | 28236 | 2.53 | 2.0E-92 | AI818119.1 | EST_HUMAN | wk27d07.x1 NCI_QGAP_Bm25 Homo sapiens cDNA clone IMAGE:2413549 3' similar to TR:Q12844 |
| 1990 | 15132 | 28237 | 2.53 | 2.0E-92 | AI818119.1 | EST_HUMAN | Q12844 BREAKPOINT CLUSTER REGION PROTEIN ; |
| 2020 | 15161 | 28265 | 1.01 | 2.0E-92 | 4507484 | NT | Q12844 BREAKPOINT CLUSTER REGION PROTEIN ; |
| 2020 | 15161 | 28266 | 1.01 | 2.0E-92 | 4507464 | NT | Homo sapiens transforming growth factor, beta 3 (TGFB3), mRNA |
| 2106 | 16245 | 28366 | 5.35 | 2.0E-92 | 4508860 | NT | Homo sapiens syndecan 4 (amphiglycan, rydican) (SDC4) mRNA |
| 2725 | 15843 | 28964 | 22.36 | 2.0E-92 | 6912457 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 3701 | 16862 | 29864 | 1.02 | 2.0E-92 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 3701 | 16862 | 29865 | 1.02 | 2.0E-92 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 3777 | 16938 | 29944 | 7.02 | 2.0E-92 | 6803180 | NT | Homo sapiens stress-induced-phosphoprotein 1 (Hsp70/Hsp90-organizing protein) (STIP1), mRNA |
| 4403 | 17546 | 30530 | 1.17 | 2.0E-92 | M10976.1 | NT | Human endogenous retroviral DNA (4-1), complete retroviral segment |
| 5108 | 18236 | | 4.1 | 2.0E-92 | AL040437.1 | EST_HUMAN | DKFZp434C0414_1 434 (synonym: htee3) Homo sapiens cDNA clone DKFZp434C0414 5' |
| 5879 | 19069 | 32377 | 0.64 | 2.0E-92 | AF016835.1 | NT | Homo sapiens P-glycoprotein (mdr1) mRNA, complete cds |
| 6431 | 19589 | | 7.19 | 2.0E-92 | 4504756 | NT | Homo sapiens integrin, alpha L (antigen CD11A (p180), lymphocyte function-associated antigen 1; alpha polypeptide) (ITGAL) mRNA |
| 6748 | 19904 | 33297 | 2.8 | 2.0E-92 | AB028891.1 | NT | Homo sapiens mRNA for KIAA1088 protein, partial cds |
| 7627 | 20597 | | 0.61 | 2.0E-92 | U67780.1 | NT | Human NPY Y1-like receptor pseudogene mRNA, complete cds |
| 7657 | 20597 | | 0.64 | 2.0E-92 | U67780.1 | NT | Human NPY Y1-like receptor pseudogene mRNA, complete cds |
| 9058 | 22135 | 35680 | 1.28 | 2.0E-92 | AW340174.1 | EST_HUMAN | hd02h02x1 Soares_NFL_T_QBC_S1 Homo sapiens cDNA clone IMAGE:2808371 3' similar to TR:O02711 |
| 10897 | 24076 | 37709 | 4.08 | 2.0E-92 | 11434900 | NT | O02711 PRO-POL-DUTPASE POLYPROTEIN ; |
| 11257 | 24326 | 37865 | 3.22 | 2.0E-92 | 11434759 | NT | Homo sapiens thyroid stimulating hormone receptor (TSHR), mRNA |
| 11409 | 24470 | 38134 | 5.71 | 2.0E-92 | AW836280.1 | EST_HUMAN | Homo sapiens zinc finger protein 198 (ZNF198), mRNA |
| 11409 | 24470 | 38135 | 5.71 | 2.0E-92 | AW836280.1 | EST_HUMAN | CM4L T0026-167299-062-g08 LT0028 Homo sapiens cDNA |
| 12758 | 25502 | 32035 | 8.46 | 2.0E-92 | AB028016.1 | NT | CM4L T0026-167299-062-g08 LT0028 Homo sapiens cDNA |
| | | | | | | | Homo sapiens mRNA for KIAA1083 protein, partial cds |

Page 418 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|-----------------------------|-------------------------------|--|
| 12782 | 25524 | 32005 | 1.36 | 2.0E-92 | AF106856.1 | NT | Homo sapiens adenylosuccinate lyase gene, complete cds |
| 13086 | 19943 | 28964 | 73.58 | 2.0E-92 | 6912457 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 1897 | 15040 | 28150 | 2.95 | 1.0E-92 | R76076.1 | EST_HUMAN | Y60608.1 Soares placenta N52HP Homo sapiens cDNA clone IMAGE:145574 5' |
| 1897 | 15040 | 28151 | 2.95 | 1.0E-92 | R76076.1 | EST_HUMAN | Y60608.1 Soares placenta N52HP Homo sapiens cDNA clone IMAGE:145574 5' |
| 2135 | 16271 | 28392 | 35.12 | 1.0E-92 | 4506668 | NT | Homo sapiens ribosomal protein, large, P1 (RPLP1) mRNA |
| 8441 | 21522 | 35051 | 0.82 | 1.0E-92 | BE439625.1 | EST_HUMAN | HTM1-288F HTM1 Homo sapiens cDNA |
| | | | | | | | Q1602.X1 NCL_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2107467 3' similar to SW:PTNF_HUMAN |
| | | | | | | | Q16825 PROTEIN-TYROSINE PHOSPHATASE D1, contains Alu repetitive element; contains element |
| 9385 | 22440 | 35899 | 3.24 | 1.0E-92 | A180356.1 | EST_HUMAN | MER17 repetitive element |
| | | | | | | | Q1602.X1 NCL_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2107467 3' similar to SW:PTNF_HUMAN |
| 9385 | 22440 | 36000 | 3.24 | 1.0E-92 | A180356.1 | EST_HUMAN | Q16825 PROTEIN-TYROSINE PHOSPHATASE D1, contains Alu repetitive element; contains element |
| 2085 | 15225 | 28347 | 3.53 | 9.0E-93 | AU121681.1 | EST_HUMAN | MER17 repetitive element |
| | | | | | | | AU121681 MAMMA1 Homo sapiens cDNA clone MAMMA1000/38 5' |
| 2100 | 15240 | | 20.41 | 9.0E-93 | AA316723.1 | EST_HUMAN | EST168414 HCC cell line (metastasis to liver in mouse) II Homo sapiens cDNA 5' end similar to ribosomal protein L28 |
| | | | | | | | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 2712 | 16890 | | 1.69 | 9.0E-93 | AF223391.1 | NT | 801281867F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3603832 5' |
| 3703 | 16894 | 28867 | 1.35 | 9.0E-93 | BE388571.1 | EST_HUMAN | Homo sapiens ribosomal protein L10a (RPL10A), mRNA |
| 11947 | 24933 | | 7.78 | 9.0E-93 | 11418526 | NT | Homo sapiens ribosomal protein L10a (RPL10A), mRNA |
| 6723 | 19890 | 33271 | 2.4 | 8.0E-93 | BF036364.1 | EST_HUMAN | 801460521F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3863908 5' |
| 256 | 13475 | 28506 | 7.25 | 7.0E-93 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 3144 | 16320 | 29332 | 0.74 | 6.0E-93 | 11528176 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1), mRNA |
| 6819 | 19872 | 33380 | 0.97 | 6.0E-93 | AB033093.1 | NT | Homo sapiens mRNA for KIAA1287 protein, partial cds |
| 7058 | 20109 | 33526 | 7.64 | 6.0E-93 | AF095771.1 | NT | Homo sapiens PTH-responsive osteosarcoma B1 protein (B1) mRNA, complete cds |
| 1412 | 14568 | 27640 | 0.99 | 5.0E-93 | AB014511.1 | EST_HUMAN | Homo sapiens mRNA for KIAA0611 protein, partial cds |
| 1439 | 14592 | 27666 | 4.61 | 5.0E-93 | A1674184.1 | EST_HUMAN | wc09c08.x1 NCL_CGAP_P28 Homo sapiens cDNA clone IMAGE:2314870 3' |
| 1439 | 14592 | 27667 | 4.61 | 5.0E-93 | A1674184.1 | EST_HUMAN | wc09c08.x1 NCL_CGAP_P28 Homo sapiens cDNA clone IMAGE:2314870 3' |
| 1439 | 14592 | 27667 | 4.61 | 5.0E-93 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 1504 | 14657 | | 4.17 | 5.0E-93 | AJ287710.1 | NT | Homo sapiens mRNA for CDC2L5 protein kinase, (CDC2L5 gene), isoform 2 |
| 1869 | 16049 | 28123 | 1.03 | 5.0E-93 | X04201.1 | NT | Human skeletal muscle 1.3 kb mRNA for tropomyosin |
| 3305 | 16479 | 29500 | 3.73 | 5.0E-93 | X04201.1 | NT | Human somatic cytochrome c (HC1) processed pseudogene, complete cds |
| 5920 | 18107 | 32420 | 1.09 | 5.0E-93 | M22878.1 | NT | Homo sapiens wbscr1 (WBSQR1) and wbscr5 (WBSQR5) genes, complete cds, alternatively spliced and replication factor C subunit 2 (RFC2) gene, complete cds |
| 6235 | 18410 | | 1.75 | 6.0E-93 | AF045656.1 | NT | |

Page 419 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 7882 | 20944 | 34450 | 3.52 | 5.0E-93 | AF067136.1 | NT | Homo sapiens protein phosphatase-1 regulatory subunit 7 (PPP1R7) gene, exon 11, complete cds and alternatively spliced product |
| 8804 | 21883 | 35422 | 0.73 | 5.0E-93 | 4557526 | NT | Homo sapiens discs, large (Drosophila) homolog 2 (chapsyn-110) (DLG2) mRNA |
| 8804 | 21883 | 35423 | 0.73 | 5.0E-93 | 4557526 | NT | Homo sapiens discs, large (Drosophila) homolog 2 (chapsyn-110) (DLG2) mRNA |
| 8822 | 22852 | 36443 | 2.02 | 5.0E-93 | AF274863.1 | NT | Homo sapiens secretory pathway component Sec31B-1 mRNA, alternatively spliced, complete cds |
| 10012 | 23050 | 36844 | 1.36 | 5.0E-93 | 5932156 | NT | Homo sapiens TAR (HIV) RNA-binding protein 1 (TARBP1) mRNA |
| 10275 | 23310 | 36808 | 1.78 | 5.0E-93 | AF069313.2 | NT | Homo sapiens WSB1 protein (WSB1) mRNA, complete cds |
| 11054 | 24140 | 37775 | 1.92 | 5.0E-93 | 11439589 | NT | Homo sapiens nucleobindin 2 (NUCB2) mRNA |
| 12851 | 25791 | 31921 | 2.31 | 5.0E-93 | 11417877 | NT | Homo sapiens gamma-glutamyltransferase 1 (GGT1), mRNA |
| 80 | 13325 | | 5.63 | 4.0E-93 | AA458933.1 | EST_HUMAN | z60e08 a1 Soares, testis NHT Homo sapiens cDNA clone IMAGE:785688 3' similar to SW:CLPA_RAT |
| 458 | 13653 | 26690 | 2.38 | 4.0E-93 | 4557879 | NT | P37897 CALPONIN, ACIDIC ISOFORM ; |
| 458 | 13653 | 26691 | 2.38 | 4.0E-93 | 4557879 | NT | Homo sapiens interferon gamma receptor 1 (IFNGR1) mRNA |
| 783 | 13972 | 27024 | 1.16 | 4.0E-93 | 7857454 | NT | Homo sapiens interferon gamma receptor 1 (IFNGR1) mRNA |
| 793 | 13972 | 27025 | 1.16 | 4.0E-93 | 7857454 | NT | Homo sapiens pascadillo (zabrafish) homolog 1, containing BRCT domain (PES1), mRNA |
| 1210 | 14371 | 27431 | 2.12 | 4.0E-93 | 8923658 | NT | Homo sapiens pascadillo (zabrafish) homolog 1, containing BRCT domain (PES1), mRNA |
| 2033 | 15174 | 28284 | 4.37 | 4.0E-93 | AF047677.1 | NT | Homo sapiens hypophthalmin (DMD) gene, deletion breakpoints 1-3 in intron 5 |
| 2318 | 15450 | 28582 | 1.19 | 4.0E-93 | AF157476.1 | NT | Homo sapiens DNA polymerase zeta catalytic subunit (REV3) mRNA, complete cds |
| 2872 | 15792 | 28909 | 1.16 | 4.0E-93 | 7666972 | NT | Homo sapiens TNF-inducible protein CG12-1 (CG12-1), mRNA |
| 3656 | 16819 | 29831 | 0.73 | 4.0E-93 | 7705393 | NT | Homo sapiens tumor antigen SLP-8p (HCC8), mRNA |
| 4159 | 17310 | 30308 | 1.51 | 4.0E-93 | 4504654 | NT | Homo sapiens tumor antigen SLP-8p (HCC8), mRNA |
| 5136 | 16819 | 29831 | 0.76 | 4.0E-93 | 7705393 | NT | Homo sapiens tumor antigen SLP-8p (HCC8), mRNA |
| 6760 | 18952 | 32255 | 5.01 | 4.0E-93 | T46894.1 | EST_HUMAN | y694c12.1 Stradagene liver (833724) Homo sapiens cDNA clone IMAGE:78838 5' similar to similar to SP:A44391 A44391 SERUM RESPONSE ELEMENT-BINDING PROTEIN SRE-ZBP - HUMAN , |
| 11398 | 24456 | 38123 | 10.47 | 4.0E-93 | AV682051.1 | EST_HUMAN | AV682051 GKX Homo sapiens cDNA clone GKXDRF07 5' |
| 3742 | 16903 | 28906 | 12.26 | 3.0E-93 | BF690630.1 | EST_HUMAN | 602246554F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:4332038 5' |
| 3742 | 16903 | 28907 | 12.26 | 3.0E-93 | BF690630.1 | EST_HUMAN | 602246554F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:4332038 5' |
| 4350 | 17493 | | 2.6 | 3.0E-93 | AF225896.1 | NT | Homo sapiens tensin mRNA, complete cds |
| 6893 | 19851 | 33242 | 1.31 | 3.0E-93 | 11428182 | NT | Homo sapiens GCN5 (general control of amino-acid synthesis, yeast, homolog)-like 2 (GCN5L2), mRNA |
| 11040 | 24119 | 37752 | 2.86 | 3.0E-93 | A1824829.1 | EST_HUMAN | W602605.x1 NCL_GCAP_GCB Homo sapiens cDNA clone IMAGE:2304489 3' |
| 185 | 13418 | 26447 | 5.59 | 2.0E-93 | AB015610.1 | NT | Chlorocebus aethiops mRNA for ribosomal protein S6X, complete cds |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 195 | 13418 | 26448 | 6.59 | 2.0E-93 | AB015810.1 | NT | Chlorocephus aethiops mRNA for ribosomal protein S4X, complete cds |
| 333 | 13547 | 26578 | 13.77 | 2.0E-93 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 334 | 13547 | 26578 | 6.74 | 2.0E-93 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 1646 | 14799 | 27884 | 3.9 | 2.0E-93 | AF225896.1 | NT | Homo sapiens tensin mRNA, complete cds |
| 2199 | 15334 | 28461 | 2.23 | 2.0E-93 | U40763.1 | NT | Human Cdk-associated RS cyclophilin CAR5-Cyp mRNA, complete cds |
| 2555 | 15880 | 28805 | 1.02 | 2.0E-93 | BE252982.1 | EST_HUMAN | 601117586F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3358220 5' |
| 5254 | 18374 | 31340 | 1.19 | 2.0E-93 | BE253201.1 | EST_HUMAN | 601116810F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3357243 5' |
| 5533 | 18730 | 31746 | 5.08 | 2.0E-93 | AW064385.1 | EST_HUMAN | EST376458 MAGE resequencing, MAGE Homo sapiens cDNA |
| 5544 | 18741 | 31775 | 0.7 | 2.0E-93 | 4768153 | NT | Homo sapiens deafness, autosomal dominant 5 (DFNA5), mRNA |
| 5660 | 18854 | | 0.64 | 2.0E-93 | BF351459.1 | EST_HUMAN | QV3-HT0513-290300-128-104 HT0513 Homo sapiens cDNA |
| 5754 | 18946 | 32248 | 1.08 | 2.0E-93 | 11430039 | NT | Homo sapiens hypothetical protein (LOC51318), mRNA |
| 5768 | 18960 | 32261 | 0.75 | 2.0E-93 | U74313.1 | EST_HUMAN | HSU74313 Human chromosome 14 Homo sapiens cDNA clone 1-88 |
| 6822 | 19975 | 38044 | 1.2 | 2.0E-93 | AW502002.1 | EST_HUMAN | UHF-BND-aka-g-09-0-U1.1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3076328 5' |
| 11333 | 24396 | 38044 | 1.39 | 2.0E-93 | AV721846.1 | EST_HUMAN | AV721846 HTB Homo sapiens cDNA clone HTBAUB04 5' |
| 11333 | 24398 | 38045 | 1.39 | 2.0E-93 | AV721846.1 | EST_HUMAN | AV721846 HTB Homo sapiens cDNA clone HTBAUB04 5' |
| 12525 | 25358 | | 1.78 | 2.0E-93 | AA126735.1 | EST_HUMAN | 2129c10.s1 Soares, pregnant uterus_NbHPU Homo sapiens cDNA clone IMAGE:503346 3' |
| 12624 | 25420 | | 3.25 | 2.0E-93 | L41825.1 | NT | Homo sapiens CYP17 gene, 5' and |
| 12630 | 25813 | | 5.34 | 2.0E-93 | BF035327.1 | EST_HUMAN | 801468531F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3862086 5' |
| 105 | 13341 | 26368 | 1.38 | 1.0E-93 | AF238997.1 | NT | Homo sapiens GTR1 pseudogene |
| 105 | 13341 | 26369 | 1.38 | 1.0E-93 | AF238997.1 | NT | Homo sapiens GTR1 pseudogene |
| 531 | 13724 | 26750 | 7.76 | 1.0E-93 | 7637016 | NT | Homo sapiens hypothetical protein (U328E19.C1.1), mRNA |
| 613 | 13802 | 26822 | 3.32 | 1.0E-93 | AI146755.1 | EST_HUMAN | cy6408.x1 NCL_CGAP_CL1.1 Homo sapiens cDNA clone IMAGE:1672503 3' similar to TR:Q62384 Q62384 |
| 895 | 14071 | 27136 | 3.43 | 1.0E-93 | D87675.1 | NT | ZINC FINGER PROTEIN ; |
| 1184 | 14358 | 27414 | 0.6 | 1.0E-93 | 4503872 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 1265 | 14422 | 27487 | 7.22 | 1.0E-93 | 8923270 | NT | Homo sapiens glutamate decarboxylase 1 (brain, 67kD) (GAD1), transcript variant GAD87, mRNA |
| 1265 | 14422 | 27488 | 7.22 | 1.0E-93 | 8923270 | NT | Homo sapiens hypothetical protein FLJ20291 (FLJ20291), mRNA |
| 1376 | 14531 | 27604 | 9.7 | 1.0E-93 | AF167706.1 | NT | Homo sapiens hypothetical protein FLJ20291 (FLJ20291), mRNA |
| 2414 | 15544 | 28672 | 1.08 | 1.0E-93 | AF231081.1 | NT | Homo sapiens cysteine-rich repeat-containing protein S62 precursor, mRNA, complete cds |
| 2534 | 15659 | 28783 | 3.06 | 1.0E-93 | AF055068.1 | NT | Homo sapiens long chain polyunsaturated fatty acid elongation enzyme (HELO-1) mRNA, complete cds |
| 2576 | 15702 | 27546 | 1.29 | 1.0E-93 | AL137200.1 | NT | Homo sapiens MHC class 1 region |
| 2883 | 14480 | 27546 | 1.32 | 1.0E-93 | BE297369.1 | EST_HUMAN | Homo sapiens MHC class 1 region |
| 2883 | 14480 | 27547 | 1.32 | 1.0E-93 | BE297369.1 | EST_HUMAN | Novel human gene mapping to chromosome 1 |
| | | | | | | | 60117786F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3532865 5' |
| | | | | | | | 60117786F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3532865 5' |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 3000 | 16176 | 29197 | 5.86 | 1.0E-93 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 3287 | 16461 | | 1.23 | 1.0E-93 | AF231981.1 | NT | Homo sapiens long chain polyunsaturated fatty acid elongation enzyme (HELO1) mRNA, complete cds |
| 4549 | 17687 | 30688 | 3.28 | 1.0E-93 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 5348 | 18461 | 31426 | 0.92 | 1.0E-93 | AF123498.1 | NT | Homo sapiens estrogen receptor alpha (ESR1) gene, exon 6 |
| 5348 | 18461 | 31427 | 0.92 | 1.0E-93 | AF123498.1 | NT | Homo sapiens estrogen receptor alpha (ESR1) gene, exon 6 |
| 5684 | 18878 | 32167 | 2.39 | 1.0E-93 | U78509.1 | NT | Homo sapiens glucocorticoid receptor (GRL) gene, intron D, exon 5, and intron E |
| 5684 | 18878 | 32168 | 2.39 | 1.0E-93 | U78509.1 | NT | Homo sapiens glucocorticoid receptor (GRL) gene, intron D, exon 5, and intron E |
| 5685 | 19074 | 32383 | 1.2 | 1.0E-93 | AF227138.1 | NT | Homo sapiens candidate taste receptor T2R14 gene, complete cds |
| 6037 | 19220 | 32543 | 10.78 | 1.0E-93 | 4557792 | NT | Homo sapiens neurofibromin 1 (neurofibromatosis, von Recklinghausen disease, Watson disease) (NF1) mRNA |
| 6326 | 19498 | 32855 | 4.8 | 1.0E-93 | 7682241 | NT | Homo sapiens KIAA0872 gene product (KIAA0872), mRNA |
| 6931 | 20246 | 33670 | 1.94 | 1.0E-93 | 11431500 | NT | Homo sapiens protein kinase C, beta 1 (PRKCB1), mRNA |
| 7400 | 20478 | 33846 | 3.24 | 1.0E-93 | D42072.1 | NT | Human mRNA for NF1 N-isoform-exon1, complete cds |
| 8455 | 21536 | 35066 | 2.29 | 1.0E-93 | AB037632.1 | NT | Homo sapiens mRNA for KIAA1411 protein, partial cds |
| 8740 | 21819 | 35353 | 1.15 | 1.0E-93 | Y10183.1 | NT | H. sapiens mRNA for MEMD protein |
| 8850 | 21929 | 35468 | 1.14 | 1.0E-93 | AF182032.1 | NT | Homo sapiens protein kinase inhibitor gamma (PKIG) mRNA, complete cds |
| 8951 | 21094 | 34608 | 2.03 | 1.0E-93 | AB040918.1 | NT | Homo sapiens mRNA for KIAA1485 protein, partial cds |
| 9655 | 21098 | 34612 | 1.14 | 1.0E-93 | AF091395.1 | NT | Homo sapiens Trio isoform mRNA, complete cds |
| 8787 | 22827 | 36403 | 3.9 | 1.0E-93 | X13474.1 | NT | Human PRA4 gene for Alzheimer's disease A4 amyloid protein precursor (exon 9) |
| 8787 | 22827 | 36404 | 3.9 | 1.0E-93 | X13474.1 | NT | Human PRA4 gene for Alzheimer's disease A4 amyloid protein precursor (exon 9) |
| 8926 | 22968 | 36555 | 1.24 | 1.0E-93 | AL049801.1 | NT | Novel human gene mapping to chromosome 13, similar to rat RhoGAP |
| 10349 | 23384 | 36994 | 0.59 | 1.0E-93 | 11433846 | NT | Homo sapiens ryanodine receptor 3 (RYR3), mRNA |
| 12820 | 26547 | | 1.62 | 1.0E-93 | AJ230125.1 | NT | Homo sapiens GGT1 gene, exon 1 |
| 12923 | 26608 | | 3.71 | 1.0E-93 | 11417858 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2), mRNA |
| 13108 | 26723 | 31941 | 1.38 | 1.0E-93 | 11417862 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 13123 | 26173 | | 1.42 | 1.0E-93 | AF240788.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 10818 | 23652 | | 1.13 | 8.0E-94 | AF163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 4070 | 17226 | 30233 | 1.94 | 6.0E-94 | AF142482.1 | NT | Homo sapiens transcription enhancer factor-5 mRNA, complete cds |
| 5483 | 18682 | 31698 | 3.51 | 5.0E-94 | AB014512.1 | NT | Homo sapiens mRNA for KIAA0612 protein, partial cds |
| 5483 | 18682 | 31699 | 3.51 | 5.0E-94 | AB014512.1 | NT | Homo sapiens mRNA for KIAA0612 protein, partial cds |
| 6173 | 18349 | 32695 | 2.24 | 5.0E-94 | AA722434.1 | EST_HUMAN | z987g06.s1 Soares_tetral_heart_NbHH19W Homo sapiens cDNA clone IMAGE:408564 3' |
| 7150 | 20285 | 33726 | 1.45 | 5.0E-94 | AJ015800.1 | EST_HUMAN | cd83d05.s1 Soares_fetus_Nb2Hf8_9w Homo sapiens cDNA clone IMAGE:1623369 3' |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 8840 | 21819 | 35457 | 0.85 | 5.0E-04 | BF528115.1 | EST_HUMAN | 602042163F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4180023 5' |
| 11215 | 24284 | 37922 | 1.43 | 5.0E-04 | 11423962 | NT | Homo sapiens adenylate kinase 2 (AK2), mRNA |
| 11216 | 24284 | 37923 | 1.43 | 5.0E-04 | 11423962 | NT | Homo sapiens adenylate kinase 2 (AK2), mRNA |
| 12503 | 28177 | 31558 | 3.6 | 5.0E-04 | T89398.1 | EST_HUMAN | Y88b04.s1 Soares fetal liver spleen 1NfLS Homo sapiens cDNA clone IMAGE:116239 3' |
| 1890 | 16034 | | 16.49 | 4.0E-04 | L05094.1 | NT | Homo sapiens ribosomal protein L27 mRNA, complete cds |
| 2723 | 15841 | 28952 | 0.99 | 4.0E-04 | 4506008 | NT | Homo sapiens protein phosphatase 1, regulatory subunit 10 (PPP1R10) mRNA |
| 3782 | 16923 | 29926 | 1.12 | 4.0E-04 | AW197851.1 | EST_HUMAN | xn89f12.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2701879 3' |
| 3782 | 16923 | 29926 | 1.12 | 4.0E-04 | AW197851.1 | EST_HUMAN | xn89f12.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2701879 3' |
| 4840 | 17973 | 30983 | 3.06 | 4.0E-04 | AI591312.1 | EST_HUMAN | hw1110.x1 NCI_CGAP_Brn62 Homo sapiens cDNA clone IMAGE:2259403 3' similar to TR:Q18265 Q16265 PROTEIN TYROSINE PHOSPHATASE ; |
| 6597 | 19757 | 33144 | 1.48 | 4.0E-04 | 11440870 | NT | Homo sapiens solute carrier family 22 (organic cation transporter), member 1-like (SLC22A1L), mRNA |
| 6597 | 19757 | 33145 | 1.48 | 4.0E-04 | 11440870 | NT | Homo sapiens solute carrier family 22 (organic cation transporter), member 1-like (SLC22A1L), mRNA |
| 7052 | 20105 | | 0.9 | 4.0E-04 | L27386.1 | NT | Homo sapiens huntingtin (HD) gene, exon 37 |
| 626 | 13811 | 26833 | 1.76 | 3.0E-04 | AB022785.1 | NT | Homo sapiens ASH2L gene, complete cds, similar to Drosophila ash2 gene |
| 739 | 13921 | 26981 | 1.13 | 3.0E-04 | 4502508 | NT | Homo sapiens complement component 5 (C5) mRNA |
| 1779 | 14928 | 28021 | 12.9 | 3.0E-04 | AF167708.1 | NT | Homo sapiens cysteine-rich repeat-containing protein S52 precursor, mRNA, complete cds |
| 1779 | 14928 | 28022 | 12.9 | 3.0E-04 | AF167708.1 | NT | Homo sapiens cysteine-rich repeat-containing protein S52 precursor, mRNA, complete cds |
| 1813 | 14962 | 28059 | 3.19 | 3.0E-04 | 4557556 | NT | Homo sapiens ETA binding protein p300 (EP300) mRNA |
| 4306 | 17449 | 30435 | 0.67 | 3.0E-04 | AA464805.1 | EST_HUMAN | zw63g08.t1 Soares_fetal_tetus_Nb21.f8_9w Homo sapiens cDNA clone IMAGE:774782 5' |
| 4437 | 17577 | 30657 | 0.72 | 3.0E-04 | AA781838.1 | EST_HUMAN | af59h08.s1 Soares_testis_NHT Homo sapiens cDNA clone 1376163 3' |
| 5798 | 18888 | 32292 | 3.21 | 3.0E-04 | 11498288 | NT | Homo sapiens zinc finger protein 277 (ZNF277), mRNA |
| 6279 | 19453 | 32801 | 1.13 | 3.0E-04 | AB011536.1 | NT | Homo sapiens mRNA for MEGF2, partial cds |
| 6581 | 18743 | 33125 | 3.84 | 3.0E-04 | AB011536.1 | NT | Homo sapiens chromosome 21 open reading frame 18 (C21ORF18), mRNA |
| 7978 | 21027 | 34541 | 0.83 | 3.0E-04 | 4826863 | NT | Homo sapiens neuronal cell adhesion molecule (NRCAM) mRNA |
| 8393 | 21474 | 35001 | 0.96 | 3.0E-04 | AF152309.1 | NT | Homo sapiens protocadherin alpha 13 (PCDH-alpha13) mRNA, complete cds |
| 8787 | 21866 | 35408 | 4.41 | 3.0E-04 | AB014578.1 | NT | Homo sapiens mRNA for KIAA0679 protein, partial cds |
| 8791 | 22831 | 38410 | 7.29 | 3.0E-04 | AF087942.1 | NT | Homo sapiens glycogenin-1L mRNA, complete cds |
| 11362 | 24423 | 38079 | 1.94 | 3.0E-04 | 4757821 | NT | Homo sapiens axonal transport of synaptic vesicles (ATSV) mRNA |
| 11976 | 24980 | 38662 | 2.11 | 3.0E-04 | U26711.1 | NT | Homo sapiens truncated form 1 lacking leucine zipper mRNA, complete cds |
| 9054 | 22993 | 36587 | 0.67 | 2.0E-04 | AI910393.1 | EST_HUMAN | w130h11.x1 NCI_CGAP_Co16 Homo sapiens cDNA clone IMAGE:2391813 3' |
| 9954 | 22993 | 36588 | 0.67 | 2.0E-04 | AI910393.1 | EST_HUMAN | w130h11.x1 NCI_CGAP_Co16 Homo sapiens cDNA clone IMAGE:2391813 3' |
| 153 | 13378 | 28410 | 3.07 | 1.0E-04 | BE296714.1 | EST_HUMAN | 601175762F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531038 5' |

Page 423 of 550
Table 4
Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 3158 | 16333 | 29342 | 2.05 | 1.0E-04 | BE253433.1 | EST_HUMAN | 601111696F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:3352669 5' |
| 3158 | 16333 | 29343 | 2.05 | 1.0E-04 | BE253433.1 | EST_HUMAN | 601111696F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:3352669 5' |
| 4478 | 17818 | 30800 | 1.11 | 1.0E-04 | 9506692 | NT | Homo sapiens hypothetical protein (FLJ20746), mRNA |
| 6108 | 16373 | 32724 | 0.89 | 1.0E-04 | AE000269.1 | NT | Escherichia coli K-12 MG1655 section 169 of 400 of the complete genome |
| 6396 | 19595 | 32925 | 1.91 | 1.0E-04 | AL040518.1 | EST_HUMAN | DKFZp434G0314.1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434G0314 5' |
| 9405 | 19574 | 32938 | 0.82 | 1.0E-04 | H08270.1 | EST_HUMAN | Y8702.1 Soares infant brain INIB Homo sapiens cDNA clone IMAGE:45053 5' |
| 6648 | 19807 | 33194 | 0.66 | 1.0E-04 | AV725992.1 | EST_HUMAN | AV725992 HTC Homo sapiens cDNA clone HTOBEF05 5' |
| 8304 | 21386 | 34908 | 0.8 | 1.0E-04 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 8304 | 21386 | 34909 | 0.8 | 1.0E-04 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 9456 | 22572 | 36138 | 2.17 | 1.0E-04 | 11428710 | NT | Homo sapiens paired box gene 5 (B-cell lineage specific activator protein) (PAX5), mRNA |
| 8990 | 23029 | 36620 | 1.35 | 1.0E-04 | BE780478.1 | EST_HUMAN | 601468748F1 NIH_MGC_07 Homo sapiens cDNA clone IMAGE:3872089 5' |
| 11321 | 24384 | 38028 | 3.11 | 1.0E-04 | U65580.1 | NT | Homo sapiens IL-1 receptor antagonist IL-1Ra (IL-1RN) gene, alternatively spliced forms, complete cds |
| 11597 | 24650 | 38334 | 1.88 | 1.0E-04 | AI272244.1 | EST_HUMAN | ap22e02.x1 Schiller oligodendrogloma Homo sapiens cDNA clone IMAGE:1958122 3' similar to TR:Q62846 |
| 12051 | 25032 | 38738 | 1.34 | 1.0E-04 | 11418871 | NT | Q62845 NEURAL CELL ADHESION PROTEIN BIG-2 PRECURSOR. ; |
| 12639 | 13378 | 26410 | 2.02 | 1.0E-04 | BE295714.1 | EST_HUMAN | Homo sapiens KIAA0164 gene product (KIAA0164), mRNA |
| 12666 | 13378 | 26410 | 1.73 | 1.0E-04 | BE295714.1 | EST_HUMAN | 601175782F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531038 5' |
| 1506 | 14659 | 27741 | 6.05 | 9.0E-05 | AF027302.1 | NT | 601175782F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531038 5' |
| 3224 | 16398 | 29409 | 1.09 | 9.0E-05 | 7662027 | NT | Homo sapiens TNF-alpha stimulated ABC protein (ABC50) mRNA, complete cds |
| 3224 | 16398 | 29410 | 1.09 | 9.0E-05 | 7662027 | NT | Homo sapiens KIAA0255 gene product (KIAA0255), mRNA |
| 5521 | 18718 | 31793 | 1.46 | 9.0E-05 | X82569.1 | NT | Homo sapiens KIAA0255 gene product (KIAA0255), mRNA |
| 5521 | 18718 | 31794 | 1.46 | 9.0E-05 | X82569.1 | NT | Musculus glyT1 gene (exons 1c and 2) |
| 8446 | 21527 | 35054 | 1.58 | 9.0E-05 | AF274763.1 | NT | Musculus glyT1 gene (exons 1c and 2) |
| 149 | 13374 | 28407 | 2.9 | 8.0E-05 | AF154830.1 | NT | Homo sapiens carboxyl phosphatase synthetase I mRNA, complete cds |
| 4658 | 17794 | 30779 | 1.68 | 8.0E-05 | AI700998.1 | EST_HUMAN | Homo sapiens carboxyl phosphatase synthetase I mRNA, complete cds |
| 4658 | 17794 | 30780 | 1.68 | 8.0E-05 | AI700998.1 | EST_HUMAN | we09e04.x1 NCI CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2340806 3' similar to gb:K00558 |
| 7087 | 20181 | 33605 | 0.73 | 8.0E-05 | 11418376 | NT | TUBULIN ALPHA-1 CHAIN (HUMAN); |
| 7390 | 20488 | 33934 | 1.4 | 8.0E-05 | 11426529 | NT | TUBULIN ALPHA-1 CHAIN (HUMAN); |
| 7390 | 20488 | 33936 | 1.4 | 8.0E-05 | 11426529 | NT | Homo sapiens KIAA0193 gene product (KIAA0193), mRNA |
| 8391 | 21472 | 34998 | 2.08 | 8.0E-05 | AF032897.1 | NT | Homo sapiens proteasome (prosome, macropain) 26S subunit, non-ATPase, 11 (PSMD11), mRNA |
| 9565 | 22707 | 36273 | 1.98 | 8.0E-05 | 11420944 | NT | Homo sapiens proteasome (prosome, macropain) 26S subunit, non-ATPase, 11 (PSMD11), mRNA |
| | | | | | | | Homo sapiens potassium channel subunit (HERG-3) mRNA, complete cds |
| | | | | | | | Homo sapiens KIAA0255 gene product (KIAA0255), mRNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO. | Exon SEQ ID NO. | ORF SEQ ID NO. | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8565 | 22707 | 38274 | 1.88 | 8.0E-95 | 11420944 | NT | Homo sapiens KIAA0255 gene product (KIAA0255), mRNA |
| 10083 | 23091 | 38693 | 2.45 | 8.0E-95 | 5174844 | NT | Homo sapiens proline dehydrogenase (proline oxidase) (PRODH) mRNA |
| 10083 | 23121 | | 2.02 | 8.0E-95 | AB037816.1 | NT | Homo sapiens mRNA for KIAA1305 protein, partial cds |
| 10440 | 23475 | 37079 | 0.81 | 8.0E-95 | 9845523 | NT | Homo sapiens early growth response 2 (Krox-20 (Drosophila) homolog) (EGR2), mRNA |
| 10953 | 24035 | 37670 | 1.59 | 8.0E-95 | AF112152.1 | NT | Homo sapiens developmental arteries and neural crest EGF-like protein mRNA, complete cds |
| 11773 | 24765 | 38461 | 1.72 | 8.0E-95 | 10864024 | NT | Homo sapiens HGF-binding transcription factor Zhangfei (ZF), mRNA |
| 11982 | 24867 | 38669 | 1.32 | 8.0E-95 | 7019572 | NT | Homo sapiens zincfin (ZIN), mRNA |
| 11982 | 24867 | 38670 | 1.32 | 8.0E-95 | 7019572 | NT | Homo sapiens zincfin (ZIN), mRNA |
| 12887 | 25988 | | 17.21 | 8.0E-95 | AA628056.1 | EST_HUMAN | z84b01.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:744849 3' similar to contains L1.11 L1 repetitive element; |
| 286 | 13504 | 26537 | 6.07 | 7.0E-95 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 286 | 13504 | 26538 | 6.07 | 7.0E-95 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 2519 | 15645 | 28767 | 1.37 | 7.0E-95 | M75973.1 | NT | Human hepatocyte growth factor gene, exon 8 |
| 2519 | 15645 | 28768 | 1.37 | 7.0E-95 | M75973.1 | NT | Human hepatocyte growth factor gene, exon 8 |
| 4489 | 17623 | 30608 | 15.92 | 7.0E-95 | M93708.1 | NT | Homo sapiens Ly-8-like protein (CD59) mRNA, complete cds |
| 4535 | 17673 | | 1.09 | 7.0E-95 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 8418 | 22492 | 36058 | 0.82 | 4.0E-95 | BE439625.1 | EST_HUMAN | HTM1-288F HTM1 Homo sapiens cDNA |
| 215 | 13438 | 28468 | 0.82 | 3.0E-95 | AV848361.1 | EST_HUMAN | AV648361 GLG Homo sapiens cDNA clone GLCBIF01 3' |
| 6558 | 18766 | 31794 | 1.52 | 3.0E-95 | BF52804.1 | EST_HUMAN | 602071148F1 NCL_CGAP_Brr64 Homo sapiens cDNA clone IMAGE:4214147 5' |
| 6791 | 26811 | 32285 | 0.94 | 3.0E-95 | 4503354 | NT | Homo sapiens dedicator of cyto-kinesis 1 (DOCK1) mRNA |
| 7319 | 20397 | 33859 | 0.73 | 3.0E-95 | AA412321.1 | EST_HUMAN | z87d01.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:730273 5' |
| 7315 | 20397 | 33860 | 0.73 | 3.0E-95 | AA412321.1 | EST_HUMAN | z87d01.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:730273 5' |
| 7525 | 20588 | 34071 | 2.01 | 3.0E-95 | AW958121.1 | EST_HUMAN | EST1370191 MAGI resequences, IMAGE Homo sapiens cDNA |
| 7625 | 20588 | 34072 | 2.01 | 3.0E-95 | AW958121.1 | EST_HUMAN | EST1370191 MAGI resequences, IMAGE Homo sapiens cDNA |
| 9555 | 22620 | 38190 | 1.82 | 3.0E-95 | 7682289 | NT | Homo sapiens KIAA0763 gene product (KIAA0763), mRNA |
| 9555 | 22620 | 38191 | 1.82 | 3.0E-95 | 7682289 | NT | Homo sapiens KIAA0763 gene product (KIAA0763), mRNA |
| 6948 | 22837 | 36581 | 0.86 | 3.0E-95 | BF213446.1 | EST_HUMAN | 601845212F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4070451 5' |
| 1676 | 14828 | 27911 | 3.52 | 2.0E-95 | 7662027 | NT | Homo sapiens KIAA0255 gene product (KIAA0255), mRNA |
| 1676 | 14828 | 27912 | 3.52 | 2.0E-95 | 7662027 | NT | Homo sapiens KIAA0255 gene product (KIAA0255), mRNA |
| 1995 | 15130 | 28242 | 73.27 | 2.0E-95 | 4507512 | NT | Homo sapiens tissue inhibitor of metalloproteinase 3 (Scrsby fundus dystrophy, pseudoinflammatory) (TIMP3) mRNA |
| 1998 | 15139 | 28246 | 3.97 | 2.0E-95 | BE393873.1 | EST_HUMAN | 601312161F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3058862 5' |
| 2487 | 16624 | 28743 | 1.5 | 2.0E-95 | 6453668 | NT | Homo sapiens G protein-coupled receptor 19 (GPR19) mRNA |
| 2497 | 16624 | 28744 | 1.5 | 2.0E-95 | 5453668 | NT | Homo sapiens G protein-coupled receptor 19 (GPR19) mRNA |

Page 425 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 2536 | 15661 | 28784 | 3.62 | 2.0E-95 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 2582 | 15707 | 28928 | 1.34 | 2.0E-95 | 4758423 | NT | Homo sapiens glycine cleavage system protein H (aminomethyl carrier) (GCSH) mRNA |
| 2682 | 16784 | | 0.99 | 2.0E-95 | R16245.1 | EST_HUMAN | ye49d08.s1 Soares Infant brain 1N1B Homo sapiens cDNA clone IMAGE:53393 3' |
| 3226 | 16400 | 28412 | 2.1 | 2.0E-95 | AF015432.1 | NT | Homo sapiens Usurpin-gamma mRNA, complete cds |
| 3655 | 16818 | 28629 | 3.6 | 2.0E-95 | 7705900 | NT | Homo sapiens unconventional myosin-15 (LOC51188), mRNA |
| 3655 | 16818 | 28630 | 3.6 | 2.0E-95 | 7705900 | NT | Homo sapiens unconventional myosin-15 (LOC51188), mRNA |
| 3708 | 16867 | 28870 | 0.81 | 2.0E-95 | AB037807.1 | NT | Homo sapiens mRNA for KIAA1386 protein, partial cds |
| 3844 | 17004 | 30008 | 0.62 | 2.0E-95 | A1290264.1 | EST_HUMAN | qmt01c02.x1 Soares_NHMPU_S1 Homo sapiens cDNA clone IMAGE:1880548 3' similar to WP:T23G7.4 CE03705 ; |
| 4481 | 17621 | 30602 | 1.36 | 2.0E-95 | 7657185 | NT | Homo sapiens hypothetical protein (HS32281A), mRNA |
| 5151 | 18273 | 31242 | 3.5 | 2.0E-95 | 7661878 | NT | Homo sapiens KIAA0187 gene product (KIAA0187), mRNA |
| 5230 | 18352 | 31321 | 0.99 | 2.0E-95 | AF108907.1 | NT | Homo sapiens S164 gene, partial cds; PS1 and hypothetical protein genes, complete cds; and S171 gene, partial cds |
| 5597 | 18792 | 31840 | 4.12 | 2.0E-95 | 7705764 | NT | Homo sapiens CGI-48 protein (LOC51098), mRNA |
| 5597 | 18792 | 31841 | 4.12 | 2.0E-95 | 7705764 | NT | Homo sapiens CGI-48 protein (LOC51098), mRNA |
| 5815 | 19005 | 32310 | 1.24 | 2.0E-95 | 11225608 | NT | Homo sapiens angiotensin I converting enzyme (peptidyl-dipeptidase A) 2 (ACE2), mRNA |
| 5816 | 19005 | 32311 | 1.24 | 2.0E-95 | 11225608 | NT | Homo sapiens angiotensin I converting enzyme (peptidyl-dipeptidase A) 2 (ACE2), mRNA |
| 5955 | 19045 | 32352 | 0.63 | 2.0E-95 | 11525893 | NT | Homo sapiens membrane protein, palmitoylated 3 (MAGUK p55 subfamily member 3) (MPP3), mRNA |
| 6270 | 19444 | 32793 | 3.86 | 2.0E-95 | M59724.1 | NT | Human muscle-type phosphofructokinase (PFK-M) gene, exon 7 |
| 6579 | 19741 | 33122 | 0.9 | 2.0E-95 | 11427182 | NT | Homo sapiens transcription factor 2, hepatic; LF-B3; variant hepatic nuclear factor (TCF2), mRNA |
| 6579 | 19741 | 33123 | 0.9 | 2.0E-95 | 11427182 | NT | Homo sapiens transcription factor 2, hepatic; LF-B3; variant hepatic nuclear factor (TCF2), mRNA |
| 6700 | 19858 | 33248 | 3.25 | 2.0E-95 | AF257737.1 | NT | Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds |
| 6903 | 20218 | 33647 | 1.47 | 2.0E-95 | 11435773 | NT | Homo sapiens huntingtin (Huntington disease) (HD), mRNA |
| 8343 | 22419 | 35973 | 1.48 | 2.0E-95 | 11421795 | NT | Homo sapiens ribophorin II (RPN2), mRNA |
| 10562 | 23627 | 37236 | 0.56 | 2.0E-95 | 11434330 | NT | Homo sapiens KIAA1065 protein (KIAA1065), mRNA |
| 10982 | 24043 | 37678 | 1.98 | 2.0E-95 | 4757853 | NT | Homo sapiens bone morphogenetic protein receptor, type IA (BMPRIA) mRNA |
| 11138 | 24210 | 37836 | 1.35 | 2.0E-95 | 7661993 | NT | Homo sapiens Sta20-related serine/threonine kinase (KIAA0204), mRNA |
| 12002 | 24987 | 38691 | 1.69 | 2.0E-95 | 7662289 | NT | Homo sapiens KIAA0763 gene product (KIAA0763), mRNA |
| 12002 | 24987 | 38692 | 1.68 | 2.0E-95 | 7662289 | NT | Homo sapiens KIAA0763 gene product (KIAA0763), mRNA |
| 12103 | 25083 | | 1.57 | 2.0E-95 | AF161420.1 | NT | Homo sapiens HSPC302 mRNA, partial cds |
| 12608 | 25407 | 32047 | 2.31 | 2.0E-95 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |

Page 426 of 550

Table 4

Table 4
Single Exon Probes Expressed In Placenta

| Table 4 | | | | | | | |
|--|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| Single Exon Probes Expressed In Placenta | | | | | | | |
| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Description |
| 12721 | 25480 | | 1.3 | 2.0E-95 | 11417860 | NT | Homo sapiens hypothetical protein (HS322B1A), mRNA |
| 13087 | 25698 | 31958 | 7.4 | 2.0E-95 | 11418164 | NT | Homo sapiens adenylosuccinate lyase (ADSL), mRNA |
| | | | | | | EST_HUMAN | Homo sapiens ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:714007 5' similar to Z23H04.r1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:392423 5' TR:G1067084 G1067084 F55H2.6; Z23H04.r1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:714007 5' similar to Z23H04.r1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:3899761 5' TR:G1067084 G1067084 F55H2.6; Z23H04.r1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:3899761 5' |
| 5732 | 18925 | 32219 | 8.06 | 1.0E-95 | AA284651.1 | EST_HUMAN | Homo sapiens chromosome 21 unknown mRNA |
| | | | | | | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 5732 | 18925 | 32220 | 8.06 | 1.0E-95 | AA284651.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34229 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34230 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34231 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34232 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34233 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34234 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34235 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34236 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34237 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34238 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34239 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34240 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34241 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34242 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34243 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34244 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34245 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34246 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34247 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34248 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34249 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34250 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34251 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34252 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34253 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34254 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34255 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34256 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34257 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34258 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34259 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34260 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34261 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34262 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34263 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34264 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34265 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34266 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34267 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34268 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34269 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34270 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34271 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34272 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34273 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34274 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34275 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34276 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34277 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34278 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34279 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34280 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34281 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34282 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34283 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34284 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34285 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34286 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34287 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34288 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34289 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34290 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34291 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34292 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34293 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34294 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34295 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34296 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34297 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34298 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34299 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34300 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34301 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34302 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34303 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34304 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34305 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34306 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34307 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34308 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34309 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34310 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34311 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34312 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34313 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34314 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34315 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34316 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34317 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34318 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34319 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34320 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34321 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34322 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34323 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34324 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34325 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34326 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34327 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34328 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34329 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34330 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34331 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34332 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34333 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34334 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34335 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34336 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34337 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34338 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34339 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34340 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34341 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34342 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34343 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34344 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34345 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34346 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34347 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34348 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C001 |
| 7683 | 20748 | 34349 | 4.11 | | | | |

Page 427 of 550
Table 4
Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 7183 | 20296 | 33740 | 0.91 | 5.0E-96 | AB023177.1 | NT | Homo sapiens mRNA for KIAA0980 protein, partial cds |
| 7884 | 20749 | 34231 | 0.76 | 5.0E-96 | AB024334.1 | NT | Homo sapiens mRNA for 14-3-3gamma, complete cds |
| 8297 | 21379 | 34900 | 1.87 | 5.0E-96 | M68347.1 | NT | Human type IV collagenase (CLG4B) gene, exon 5 |
| 8297 | 21379 | 34901 | 1.87 | 5.0E-96 | M68347.1 | NT | Human type IV collagenase (CLG4B) gene, exon 5 |
| 12063 | 25063 | 38769 | 1.33 | 5.0E-96 | 7661873 | NT | Homo sapiens KIAA0175 gene product (KIAA0175), mRNA |
| 4308 | 17451 | | 15.95 | 3.0E-96 | H63656.1 | EST_HUMAN | y87H12.1 Soares fetal liver spleen 1NFS Homo sapiens cDNA clone IMAGE:212327 5' |
| 428 | 13623 | | 6.76 | 2.0E-96 | 4503098 | NT | Homo sapiens chondroin sulfite proteoglycan 4 (melanoma-associated) (CSPG4), mRNA |
| 766 | 13947 | 28894 | 1.1 | 2.0E-96 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 1834 | 14981 | 28079 | 1.03 | 2.0E-96 | 7706205 | NT | Homo sapiens CGI-201 protein (LOC51340), mRNA |
| 4880 | 18011 | 30895 | 1.59 | 2.0E-96 | BE148074.1 | EST_HUMAN | RC3-H12020-040500-110-902 HT0230 Homo sapiens cDNA |
| 7620 | 20690 | 34166 | 0.59 | 2.0E-96 | BF369731.1 | EST_HUMAN | QV4-GN0120-250900-427-512 GN0120 Homo sapiens cDNA |
| 7620 | 20690 | 34166 | 0.59 | 2.0E-96 | BF369731.1 | EST_HUMAN | QV4-GN0120-250900-427-512 GN0120 Homo sapiens cDNA |
| 9181 | 22259 | | 4.9 | 2.0E-96 | AW689461.1 | EST_HUMAN | AV689461 GKC Homo sapiens cDNA clone GKCFMD07 5' |
| 12288 | 26214 | | 2.54 | 2.0E-96 | AW249440.1 | EST_HUMAN | 2819361.5prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2819361 5' |
| 638 | 13823 | 28845 | 0.86 | 1.0E-96 | 4828863 | NT | Homo sapiens neuronal cell adhesion molecule (NRCAM) mRNA |
| 638 | 13823 | 28846 | 0.86 | 1.0E-96 | 4828863 | NT | Homo sapiens neuronal cell adhesion molecule (NRCAM) mRNA |
| 688 | 13872 | 28805 | 3.08 | 1.0E-96 | Y18880.1 | NT | Human endogenous retrovirus type K (HERV-K), gag, pol and env genes |
| 1822 | 14871 | 28063 | 9.97 | 1.0E-96 | AW955054.1 | EST_HUMAN | EST367124 MAGC resequences, MAGC Homo sapiens cDNA |
| 1822 | 14871 | 28064 | 9.97 | 1.0E-96 | AW955054.1 | EST_HUMAN | EST367124 MAGC resequences, MAGC Homo sapiens cDNA |
| 6331 | 18444 | | 1.59 | 1.0E-96 | 5453913 | NT | Homo sapiens phospholipid transfer protein (PLTP) mRNA |
| 7105 | 18532 | 31487 | 1.19 | 1.0E-96 | 0912735 | NT | Homo sapiens transient receptor potential channel 5 (TRPC5), mRNA |
| 7194 | 20059 | 33470 | 0.71 | 1.0E-96 | 0912455 | NT | Homo sapiens guanine nucleotide exchange factor for Rap1 (KIAA0277), mRNA |
| 8407 | 21488 | 35017 | 0.9 | 1.0E-96 | 7661803 | NT | Homo sapiens HSPC144 protein (HSPC144), mRNA |
| 8407 | 21488 | 35018 | 0.9 | 1.0E-96 | 7661803 | NT | Homo sapiens HSPC144 protein (HSPC144), mRNA |
| 8913 | 21592 | 35531 | 21.44 | 1.0E-96 | 11419429 | NT | Homo sapiens similar to ectonucleotide pyrophosphatase/phosphodiesterase 3 (H. sapiens) (LOC63214), mRNA |
| 8051 | 22130 | 35674 | 2.22 | 1.0E-96 | AF274863.1 | NT | Homo sapiens secretory pathway component Sec31B-1 mRNA, alternatively spliced, complete cds |
| 10362 | 23397 | 37007 | 0.88 | 1.0E-96 | AB033116.1 | NT | Homo sapiens mRNA for KIAA1290 protein, partial cds |
| 10362 | 23397 | 37008 | 0.88 | 1.0E-96 | AB033116.1 | NT | Homo sapiens mRNA for KIAA1290 protein, partial cds |
| 12274 | 13823 | 28846 | 3.29 | 1.0E-96 | 4828863 | NT | Homo sapiens neuronal cell adhesion molecule (NRCAM) mRNA |
| 12274 | 13823 | 28846 | 3.29 | 1.0E-96 | 4828863 | NT | Homo sapiens neuronal cell adhesion molecule (NRCAM) mRNA |
| 3405 | 18575 | 28590 | 0.72 | 6.0E-97 | BF245240.1 | EST_HUMAN | 601883712F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4081202 5' |
| 7730 | 20782 | | 3.4 | 6.0E-97 | BE141849.1 | EST_HUMAN | IL6-HT0117-011089-004-D07 HT0117 Homo sapiens cDNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 9134 | 22213 | 35757 | 0.75 | 6.0E-97 | BE889012.1 | EST_HUMAN | 601440317F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3925133 5' |
| 9134 | 22213 | 35758 | 0.76 | 6.0E-97 | BE889012.1 | EST_HUMAN | 601440317F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3925133 5' |
| 10821 | 23854 | 37475 | 0.65 | 6.0E-97 | AA320332.1 | EST_HUMAN | EST22672 Adipose tissue, white II Homo sapiens cDNA 5' end |
| 10821 | 23854 | 37478 | 0.65 | 6.0E-97 | AA320332.1 | EST_HUMAN | EST22672 Adipose tissue, white II Homo sapiens cDNA 5' end |
| 11682 | 24690 | 36381 | 2.42 | 6.0E-97 | X15804.1 | NT | Human mRNA for alpha-actinin |
| 8204 | 21286 | 34809 | 1.73 | 6.0E-97 | AL043314.2 | EST_HUMAN | DKFZp344N0323_1 434 (synonym: hies3) Homo sapiens cDNA clone IMAGE:767768 3' similar to TR:G1304125 |
| 8336 | 21417 | 34943 | 11.21 | 6.0E-97 | AA418026.1 | EST_HUMAN | z07012.e1 Soares_NIHMPu_S1 Homo sapiens cDNA clone IMAGE:767768 3' similar to TR:G1304125 |
| 9877 | 22817 | 36502 | 3.12 | 5.0E-97 | BF164912.1 | EST_HUMAN | RC04-BT0812-250800-032-e09 BT0812 Homo sapiens cDNA |
| 11840 | 24829 | 38519 | 1.68 | 5.0E-97 | BE148597.1 | EST_HUMAN | MRO-HT0241-150500-010-502 HT0241 Homo sapiens cDNA |
| 11840 | 24829 | 38520 | 1.68 | 5.0E-97 | BE148597.1 | EST_HUMAN | MRO-HT0241-150500-010-502 HT0241 Homo sapiens cDNA |
| 952 | 14135 | 27186 | 2.13 | 4.0E-97 | BE004436.1 | EST_HUMAN | CMD-BN0108-170300-293-a06 BN0108 Homo sapiens cDNA |
| 1959 | 15102 | 28202 | 1.41 | 4.0E-97 | 5453572 | NT | Homo sapiens brefeldin A-inhibited guanine nucleotide-exchange protein 2 (BIG2), mRNA |
| 5593 | 18977 | 32166 | 0.92 | 4.0E-97 | 4557325 | NT | Homo sapiens apolipoprotein H (beta-2-glycoprotein I) (APOH), mRNA |
| 6962 | 20190 | 33615 | 8.47 | 4.0E-97 | Y11339.2 | NT | Homo sapiens mRNA for GalNAc alpha-2, 6-sialyltransferase 1, long form |
| 6962 | 20190 | 33616 | 6.47 | 4.0E-97 | Y11339.2 | NT | Homo sapiens mRNA for GalNAc alpha-2, 6-sialyltransferase 1, long form |
| 7161 | 20294 | 33737 | 1.09 | 4.0E-97 | 7710125 | NT | Homo sapiens ligase III, DNA, ATP-dependent (LIG3), transcript variant alpha, mRNA |
| 7214 | 20079 | 33492 | 0.92 | 4.0E-97 | 11422155 | NT | Homo sapiens cystic fibrosis transmembrane conductance regulator, ATP-binding cassette (sub-family C, member 7) (CFTR), mRNA |
| 8329 | 21411 | 34937 | 1.08 | 4.0E-97 | 4557708 | NT | Homo sapiens laminin, alpha 2 (merosin, congenital muscular dystrophy) (LAMA2), mRNA |
| 8553 | 21634 | 35171 | 1.43 | 4.0E-97 | 11421783 | NT | Homo sapiens v-src avian sarcoma (Schmidt-Ruppin A-2) viral oncogene homolog (SRC), mRNA |
| 8779 | 21858 | 35401 | 0.51 | 4.0E-97 | 11431060 | NT | Homo sapiens N-myc (and STAT) Interactor (NMI), mRNA |
| 8820 | 21899 | 35438 | 0.82 | 4.0E-97 | 11423233 | NT | Homo sapiens cytochrome P450, subfamily IVB, polypeptide 1 (CYP4B1), mRNA |
| 9449 | 22665 | 36128 | 1.06 | 4.0E-97 | AB011168.1 | NT | Homo sapiens mRNA for KIAA0594 protein, partial cds |
| 9449 | 22665 | 36129 | 1.06 | 4.0E-97 | AB011168.1 | NT | Homo sapiens mRNA for KIAA0594 protein, partial cds |
| 10652 | 23686 | 37296 | 0.55 | 4.0E-97 | 11431060 | NT | Homo sapiens N-myc (and STAT) Interactor (NMI), mRNA |
| 11435 | 24496 | 38162 | 1.99 | 4.0E-97 | 11863122 | NT | Homo sapiens AXL receptor tyrosine kinase (AXL), transcript variant 1, mRNA |
| 11435 | 24496 | 38163 | 1.99 | 4.0E-97 | 11863122 | NT | Homo sapiens AXL receptor tyrosine kinase (AXL), transcript variant 1, mRNA |
| 11719 | 23905 | 37628 | 4.51 | 4.0E-97 | AB042557.1 | NT | Homo sapiens mRNA, similar to rat myomegalin, complete cds |
| 12472 | 25325 | | 5.28 | 4.0E-97 | 11418318 | NT | Homo sapiens G-2 and 3-phase expressed 1 (GTSE1), mRNA |
| 253 | 13473 | 26504 | 1.58 | 3.0E-97 | AB032988.1 | NT | Homo sapiens mRNA for KIAA1172 protein, partial cds |
| 897 | 14073 | 27138 | 7.15 | 3.0E-97 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |

Page 429 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 887 | 14073 | 27139 | 7.16 | 3.0E-97 | 4502168 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease neuro-II, Alzheimer disease) (APP), mRNA |
| 1473 | 16030 | 27712 | 1.94 | 3.0E-97 | 4768813 | NT | Homo sapiens N-myc (and STAT) Interactor (NMI), mRNA |
| 2508 | 15998 | 28755 | 2.4 | 3.0E-97 | U38255.1 | NT | Human beta-prime-adaptin (BAM22) gene, exon 7 |
| 3333 | 16506 | 29523 | 0.96 | 3.0E-97 | 5174478 | NT | Homo sapiens pericentriolar (PCNT) mRNA |
| 4902 | 18032 | 31021 | 22.23 | 1.0E-97 | 4503470 | NT | Homo sapiens eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) mRNA |
| 6557 | 19719 | 33095 | 2.72 | 1.0E-97 | BE566488.1 | EST_HUMAN | 601339520F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3881821 6' |
| 7039 | 20092 | 33509 | 0.69 | 1.0E-97 | 6463881 | NT | Homo sapiens phosphotyrosine kinase, gamma 1 (muscle) (PHKG1) mRNA |
| 8968 | 23005 | 36600 | 1.02 | 1.0E-97 | R10887.1 | EST_HUMAN | Homo sapiens KIAA0849 gene product (KIAA0849), mRNA |
| 10946 | 24027 | 37663 | 2.84 | 1.0E-97 | 11427757 | NT | Homo sapiens KIAA0849 gene product (KIAA0849), mRNA |
| 10945 | 24027 | 37684 | 2.84 | 1.0E-97 | 11427757 | NT | Homo sapiens KIAA0849 gene product (KIAA0849), mRNA |
| 11589 | 24642 | 38324 | 1.38 | 1.0E-97 | AA653761.1 | EST_HUMAN | nk2g02.s1 NCI_CGAP_Cot11 Homo sapiens cDNA clone IMAGE:1014962 3' |
| 11768 | 23942 | 37688 | 8.3 | 1.0E-97 | 11428272 | NT | Homo sapiens ribosomal protein S15 (RPS15), mRNA |
| 11756 | 23942 | 37569 | 8.3 | 1.0E-97 | 11428272 | NT | Homo sapiens ribosomal protein S15 (RPS15), mRNA |
| 924 | 14098 | 27163 | 2.34 | 9.0E-98 | BE09073.1 | EST_HUMAN | PM4-BT0724-010400-008-a12 BT0724 Homo sapiens cDNA |
| 1305 | 14461 | 27528 | 1.32 | 9.0E-98 | 8393092 | NT | Homo sapiens cat eye syndrome critical region gene 1 (CECR1), mRNA |
| 6432 | 18600 | | 0.79 | 9.0E-98 | AJ250713.1 | NT | Homo sapiens CLDN12 gene for claudin-12 |
| 8020 | 21072 | 34583 | 4.13 | 9.0E-98 | AB046856.1 | NT | Homo sapiens mRNA for KIAA1636 protein, partial cds |
| 8020 | 21072 | 34584 | 4.13 | 9.0E-98 | AB046856.1 | NT | Homo sapiens mRNA for KIAA1636 protein, partial cds |
| 8109 | 21181 | 34711 | 5.62 | 9.0E-98 | 4758119 | NT | Homo sapiens death-associated protein (DAP), mRNA |
| 8108 | 21191 | 34712 | 5.62 | 9.0E-98 | 4758119 | NT | Homo sapiens death-associated protein (DAP), mRNA |
| 9316 | 22392 | 35043 | 1.78 | 9.0E-98 | X05989.1 | NT | Human mRNA for amyloid A4(751) protein |
| 9425 | 22489 | 36064 | 1.12 | 9.0E-98 | 11321580 | NT | Homo sapiens succinate-CoA ligase, GDP-forming, alpha subunit (SUCLG1), mRNA |
| 9492 | 22549 | 36112 | 1.6 | 9.0E-98 | AB037786.1 | NT | Homo sapiens mRNA for KIAA1365 protein, partial cds |
| 9540 | 22605 | | 0.81 | 9.0E-98 | AF057728.1 | NT | Homo sapiens 17-beta-hydroxysteroid dehydrogenase IV (HSD17B4) gene, exon 8 |
| 9567 | 22709 | 36276 | 1.28 | 9.0E-98 | 4507070 | NT | Homo sapiens SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 3 (SMARCA3) mRNA |
| 9567 | 22709 | 36277 | 1.28 | 9.0E-98 | 4507070 | NT | Homo sapiens SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 3 (SMARCA3) mRNA |
| 10487 | 23502 | 37115 | 0.67 | 9.0E-98 | AF141325.2 | NT | Homo sapiens inositol polyphosphate 1-phosphatase (INPP1) gene, complete cds |
| 10575 | 23610 | 37215 | 0.5 | 9.0E-98 | 11431544 | NT | Homo sapiens protease-activated receptor 3 (PAR3), mRNA |
| 11253 | 24322 | 37982 | 2.62 | 9.0E-98 | AB023222.1 | NT | Homo sapiens mRNA for KIAA1005 protein, partial cds |
| 11263 | 24322 | 37963 | 2.62 | 9.0E-98 | AB023222.1 | NT | Homo sapiens mRNA for KIAA1005 protein, partial cds |
| 12487 | 14089 | 27163 | 4.97 | 9.0E-98 | BE080973.1 | EST_HUMAN | PM4-BT0724-010400-008-a12 BT0724 Homo sapiens cDNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 1403 | 14557 | 27631 | 0.93 | 8.0E-98 | AB033798.1 | NT | Homo sapiens hPAD-cbonyl10 mRNA for peptidylarginine deiminase type I, complete cds |
| 1591 | 14743 | 27825 | 1.1 | 8.0E-98 | 5931810 | NT | Homo sapiens IL2-inducible T-cell kinase (ITK), mRNA |
| 1601 | 14743 | 27826 | 1.1 | 8.0E-98 | 6031810 | NT | Homo sapiens IL2-inducible T-cell kinase (ITK), mRNA |
| 1765 | 14914 | 28009 | 2.79 | 8.0E-98 | AB017007.1 | NT | Homo sapiens PMS2L16 mRNA, partial cds |
| 1765 | 14914 | 28010 | 2.79 | 8.0E-98 | AB017007.1 | NT | Homo sapiens PMS2L16 mRNA, partial cds |
| 3896 | 17055 | 30055 | 6.45 | 8.0E-98 | J04469.1 | NT | Human mitochondrial creatine kinase (CKMT) gene, complete cds |
| 6207 | 19382 | 32732 | 0.96 | 5.0E-98 | BE885873.1 | EST_HUMAN | 601607503F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3809097 5' |
| 2247 | 15380 | 28508 | 1.35 | 3.0E-98 | AJ403124.1 | EST_HUMAN | AJ403124 3.4 (downregulated in larynx carcinoma) Homo sapiens cDNA clone 18 |
| 2673 | 15793 | 28910 | 2.1 | 3.0E-98 | AB014607.1 | NT | Homo sapiens mRNA for KIAA0707 protein, partial cds |
| 2807 | 15921 | | 5.04 | 3.0E-98 | AA07498.1 | EST_HUMAN | 7B18H01 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA clone 7B18H01 |
| 7085 | 20179 | 33602 | 1.99 | 3.0E-98 | 11418210 | NT | Homo sapiens activator of S phase kinase (ASK), mRNA |
| 7085 | 20179 | 33603 | 1.99 | 3.0E-98 | 11418210 | NT | Homo sapiens activator of S phase kinase (ASK), mRNA |
| 8951 | 22030 | 35571 | 4.07 | 3.0E-98 | H46698.1 | EST_HUMAN | y017g09.r1 Scores adult brain N255HB55Y Homo sapiens cDNA clone IMAGE:178240 5' |
| 9497 | 22553 | 36715 | 0.54 | 3.0E-98 | 8922086 | NT | Homo sapiens uncharacterized bone marrow protein BM039 (BM039), mRNA |
| 10087 | 23125 | 36726 | 1.82 | 3.0E-98 | AJ403124.1 | EST_HUMAN | AJ403124 3.4 (downregulated in larynx carcinoma) Homo sapiens cDNA clone 18 |
| 10087 | 23125 | 36727 | 1.82 | 3.0E-98 | AJ403124.1 | EST_HUMAN | AJ403124 3.4 (downregulated in larynx carcinoma) Homo sapiens cDNA clone 18 |
| 10891 | 23724 | 37330 | 0.89 | 3.0E-98 | BE900454.1 | EST_HUMAN | 601673886F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3956517 5' |
| 11195 | 24284 | 37899 | 2.56 | 3.0E-98 | U59309.1 | NT | Human fumarylase precursor (FH) mRNA, nuclear gene encoding mitochondrial protein, complete cds |
| 11819 | 24908 | 38504 | 2.22 | 3.0E-98 | AI169975.1 | EST_HUMAN | qls80h02.x1 Scores fetal heart N5HH10W Homo sapiens cDNA clone IMAGE:1706451 3' |
| 13138 | 25739 | | 3.01 | 3.0E-98 | 11418177 | NT | Homo sapiens Ran GTPase activating protein 1 (RANGAP1), mRNA |
| 764 | 13935 | 26980 | 0.67 | 2.0E-98 | BE281694.1 | EST_HUMAN | 601149486F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3502245 5' |
| 2141 | 15277 | 28399 | 4.06 | 2.0E-98 | BE294281.1 | EST_HUMAN | 601172858F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3528134 5' |
| 2311 | 16443 | 28578 | 2.21 | 2.0E-98 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 4411 | 17553 | 30538 | 0.82 | 2.0E-98 | AF032987.1 | NT | Homo sapiens potassium channel subunit (HERG-3) mRNA, complete cds |
| 4459 | 17599 | 30577 | 4.23 | 2.0E-98 | 4758331 | NT | Homo sapiens fatty-acid-Coenzyme A ligase, long-chain 4 (FAOCL4) mRNA |
| 4948 | 18078 | 31052 | 1.39 | 2.0E-98 | AF218902.1 | NT | Homo sapiens attractin precursor (ATTRN) gene, exon 16 |
| 4948 | 18078 | 31053 | 1.39 | 2.0E-98 | AF218902.1 | NT | Homo sapiens attractin precursor (ATTRN) gene, exon 16 |
| 5492 | 18691 | 31708 | 4.76 | 2.0E-98 | 7706512 | NT | Homo sapiens PDZ domain-containing guanine nucleotide exchange factor 1 (LOC51735), mRNA |
| 6703 | 10948 | 33347 | 1.7 | 2.0E-98 | 4605708 | NT | Homo sapiens phosphatidylinositol 3-kinase, class 2, alpha polypeptide (PIK3C2A) mRNA |
| 7801 | 20957 | 34348 | 1.25 | 2.0E-98 | 11431271 | NT | Homo sapiens hypothetical protein FLJ10488 (FLJ10488), mRNA |
| 7801 | 20957 | 34349 | 1.25 | 2.0E-98 | 11431271 | NT | Homo sapiens hypothetical protein FLJ10488 (FLJ10488), mRNA |
| 8807 | 21866 | 35426 | 4.44 | 2.0E-98 | 11428813 | NT | Homo sapiens SH3-domain GRB2-like 2 (SH3GL2), mRNA |
| 8807 | 21866 | 35427 | 4.44 | 2.0E-98 | 11428813 | NT | Homo sapiens SH3-domain GRB2-like 2 (SH3GL2), mRNA |

Page 431 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 8889 | 21988 | 35503 | 0.8 | 2.0E-08 | L76653.1 | NT | Homo sapiens NKAT4b mRNA, complete cds |
| 8889 | 21988 | 35504 | 0.8 | 2.0E-08 | L76653.1 | NT | Homo sapiens NKAT4b mRNA, complete cds |
| 9737 | 22802 | 36376 | 1.58 | 2.0E-08 | X12864.1 | NT | H. sapiens arginase gene exon 3 (EC 3.5.3.1) |
| 10624 | 23658 | | 1.66 | 2.0E-08 | 7705868 | NT | Homo sapiens AIM-1 protein (LOC51161), mRNA |
| 12136 | 25116 | | 1.61 | 2.0E-08 | AB046813.1 | NT | Homo sapiens mRNA for KIAA1583 protein, partial cds |
| 12492 | 28340 | 32062 | 2.23 | 2.0E-08 | 11435947 | NT | Homo sapiens chromosome 12 open reading frame 3 (C12ORF3), mRNA |
| 418 | 13613 | 26953 | 27.52 | 1.0E-08 | AI862007.1 | EST_HUMAN | hw38a04.x1 NCL_CGAP_U1 Homo sapiens cDNA clone IMAGE:2261743 3' similar to SW:RL2B_HUMAN |
| 487 | 13662 | 26988 | 3.27 | 1.0E-08 | AW696811.1 | EST_HUMAN | PMO-BN0065-100300-001-c08 BN0068 Homo sapiens cDNA |
| 1840 | 14986 | 28086 | 26.16 | 1.0E-08 | N49818.1 | EST_HUMAN | YV2305.1 Soares fetal liver spleen 1NPLS Homo sapiens cDNA clone IMAGE:243585 5' similar to PIR:S54204 S54204 ribosomal protein L29 - human; |
| 5432 | 18632 | 31610 | 3.3 | 1.0E-08 | AA195854.1 | EST_HUMAN | Zp98c09.r1 Stratagene muscle 697208 Homo sapiens cDNA clone IMAGE:928240 5' similar to TR:G806562 |
| 5687 | 18881 | 32172 | 0.97 | 1.0E-08 | BE390627.1 | EST_HUMAN | G806562 NEBULIN; |
| 5687 | 18881 | 32173 | 0.97 | 1.0E-08 | BE390627.1 | EST_HUMAN | 601284986F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3606692 5' |
| 9199 | 22277 | 35815 | 0.59 | 1.0E-08 | AF141349.1 | NT | 601284986F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3606692 5' |
| 9199 | 22277 | 35816 | 0.59 | 1.0E-08 | AF141349.1 | NT | Homo sapiens beta-tubulin mRNA, complete cds |
| 5939 | 19125 | 32438 | 1.05 | 9.0E-09 | AI905004.1 | EST_HUMAN | Homo sapiens beta-tubulin mRNA, complete cds |
| 5939 | 19125 | 32439 | 1.05 | 9.0E-09 | AI905004.1 | EST_HUMAN | QV-BT073-191298-012 BT073 Homo sapiens cDNA |
| 6165 | 19341 | 32688 | 4.01 | 9.0E-09 | AW696835.1 | EST_HUMAN | QV-BT073-191298-012 BT073 Homo sapiens cDNA |
| 11384 | 24445 | 38105 | 1.85 | 9.0E-09 | AI479829.1 | EST_HUMAN | EST380711 MAGE resequences, MAGJ Homo sapiens cDNA |
| 11384 | 24445 | 38106 | 1.85 | 9.0E-09 | AI479829.1 | EST_HUMAN | tn69h07.x1 NCL_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2163421 3' similar to SW:RID_HUMAN |
| 11700 | 24997 | 38389 | 1.72 | 9.0E-09 | AA134604.1 | EST_HUMAN | P55957 BH3 INTERACTING DOMAIN DEATH AGONIST; |
| 8924 | 22003 | 35542 | 1.19 | 8.0E-09 | 9635487 | NT | tn69h07.x1 NCL_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2163421 3' similar to SW:RID_HUMAN |
| 5959 | 19142 | 32458 | 9.25 | 7.0E-09 | AF036808.1 | NT | P55957 BH3 INTERACTING DOMAIN DEATH AGONIST; |
| 11809 | 24898 | 38599 | 1.91 | 7.0E-09 | AF001886.1 | NT | tn69h07.x1 NCL_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2163421 3' similar to SW:RID_HUMAN |
| 484 | 13678 | 26713 | 0.72 | 6.0E-09 | U10991.1 | NT | P55957 BH3 INTERACTING DOMAIN DEATH AGONIST; |
| 2198 | 15331 | 28456 | 6.2 | 6.0E-09 | 11430555 | NT | zn90402.r1 Stratagene lung carcinoma 697218 Homo sapiens cDNA clone IMAGE:565443 5' similar to TR:G862994 G862994 GPI-ANCHORED PROTEIN P137.; |
| 2198 | 15331 | 28457 | 6.2 | 6.0E-09 | 11430555 | NT | Human endogenous retrovirus, complete genome |
| 3995 | 17152 | 30160 | 2.8 | 6.0E-09 | AW676364.1 | EST_HUMAN | Homo sapiens oscillin (hLn) gene, exon 6 |
| 4870 | 18003 | 30986 | 1.42 | 6.0E-09 | 4502860 | NT | Homo sapiens NK-receptor (KIR-G2) gene, linker region exon |
| | | | | | | | Human G2 protein mRNA, partial cds |
| | | | | | | | Homo sapiens cysteine-rich repeat-containing protein S52 precursor, (LOC51232), mRNA |
| | | | | | | | Homo sapiens cysteine-rich repeat-containing protein S52 precursor, (LOC51232), mRNA |
| | | | | | | | EST388473 MAGE resequences, MAGN Homo sapiens cDNA |
| | | | | | | | Homo sapiens CD34 antigen (CD34) mRNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 6732 | 18888 | 33280 | 0.84 | 6.0E-09 | 7706136 | NT | Homo sapiens GAP-like protein (LOC51308), mRNA |
| 6816 | 18888 | 33378 | 0.74 | 6.0E-09 | L43610.1 | NT | Homo sapiens polycystic kidney disease (PKD1) gene, exons 27-30 |
| 6816 | 18888 | 33377 | 0.74 | 6.0E-09 | L43610.1 | NT | Homo sapiens polycystic kidney disease (PKD1) gene, exons 27-30 |
| 8298 | 21378 | 34889 | 1.85 | 6.0E-09 | X99101.1 | NT | H. sapiens mRNA for estrogen receptor |
| 8314 | 21396 | 34921 | 0.59 | 6.0E-09 | 6801589 | NT | Homo sapiens ankyrin-like with transmembrane domains 1 (ANKTM1), mRNA |
| 8894 | 22043 | 35586 | 2.67 | 6.0E-09 | AB036428.1 | NT | Homo sapiens NDST4 mRNA for N-deacetylase/N-sulfatransferase 4, complete cds |
| 9084 | 22143 | 35688 | 7.9 | 6.0E-09 | AF080285.1 | NT | Homo sapiens iodester protein mRNA, complete cds |
| 9084 | 22143 | 35689 | 7.8 | 6.0E-09 | AF080285.1 | NT | Homo sapiens iodester protein mRNA, complete cds |
| 9123 | 22202 | 35744 | 0.59 | 6.0E-09 | 11431894 | NT | Homo sapiens inositol 1,4,5-trisphosphate receptor, type 1 (ITPR1), mRNA |
| 9123 | 22202 | 35745 | 0.59 | 6.0E-09 | 11431894 | NT | Homo sapiens inositol 1,4,5-trisphosphate receptor, type 1 (ITPR1), mRNA |
| 10858 | 24039 | 37874 | 3.16 | 6.0E-09 | 11628299 | NT | Homo sapiens BH3 interacting domain death agonist (BID), mRNA |
| 11742 | 23928 | 37553 | 2.02 | 6.0E-09 | 6910279 | NT | Homo sapiens UDP-glucose:glycoprotein glucosyltransferase 1 (HUGT1), mRNA |
| 11742 | 23928 | 37554 | 2.02 | 6.0E-09 | 6910279 | NT | Homo sapiens UDP-glucose:glycoprotein glucosyltransferase 1 (HUGT1), mRNA |
| 2022 | 15163 | 28268 | 1 | 5.0E-09 | Y11355.1 | NT | H. sapiens IMPA gene, exon 8 |
| 4686 | 17821 | 30809 | 1.81 | 5.0E-09 | AF009680.1 | NT | Homo sapiens T cell receptor beta locus, TCRBV7S3A2 to TCRBV12S2 region |
| 12602 | 26348 | | 2.49 | 5.0E-09 | BE890177.1 | EST_HUMAN | 601613167F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3914391 5' |
| 8516 | 21597 | | 4.85 | 3.0E-09 | M95566.1 | NT | Human E2A/HLA fusion protein (E2A/HLF) mRNA, complete cds |
| 1288 | 14426 | | 7.26 | 2.0E-09 | AW274792.1 | EST_HUMAN | x00606.x1 NCL_CGAP_HN9 Homo sapiens cDNA clone IMAGE:2738874 3' similar to gb-M31212 MYOSIN LIGHT CHAIN ALKALI, NON-MUSCLE ISOFORM (HUMAN); |
| 3331 | 15504 | 28522 | 1.4 | 2.0E-09 | M30838.1 | NT | Human Ku (p70/p80) subunit mRNA, complete cds |
| 4665 | 17800 | 30787 | 1.82 | 2.0E-09 | AF095703.1 | NT | Homo sapiens short chain L-3-hydroxyacyl-CoA dehydrogenase precursor (HADHSC) gene, nuclear gene |
| 7851 | 20906 | 34410 | 0.76 | 2.0E-09 | AF257737.1 | NT | encoding mitochondrial protein, complete cds |
| | | | | | | NT | Homo sapiens ciliary dynein heavy chain 8 (DNAH8) mRNA, complete cds |
| 8904 | 21983 | 35523 | 10.79 | 2.0E-09 | W23507.1 | EST_HUMAN | zb46608.r1 Soares_fetal_Jung_NHL-19W Homo sapiens cDNA clone IMAGE:3066936 5' similar to gb:M16182 BETA-GLUCURONIDASE PRECURSOR (HUMAN); |
| 9353 | 22428 | 35986 | 0.76 | 2.0E-09 | R78254.1 | EST_HUMAN | y81609.r1 Soares placenta NB2HP Homo sapiens cDNA clone IMAGE:145825 5' |
| 11367 | 24428 | 38085 | 3.16 | 2.0E-09 | AF247457.2 | NT | Homo sapiens myosin X (MYO10) mRNA, complete cds |
| 12081 | 25061 | 38767 | 1.64 | 2.0E-09 | 10863960 | NT | Homo sapiens potassium channel, subfamily K, member 10 (KCNK10), mRNA |
| 326 | 13539 | 26571 | 1.49 | 1.0E-09 | AF114487.1 | NT | Homo sapiens intercalin long isoform (ITSN) mRNA, complete cds |
| 390 | 13593 | 26632 | 1.75 | 1.0E-09 | 11626160 | NT | Homo sapiens GA-binding protein transcription factor, alpha subunit (60kD) (GABPA), mRNA |
| 1452 | 14005 | 27694 | 3.61 | 1.0E-09 | M30938.1 | NT | Human Ku (p70/p80) subunit mRNA, complete cds |
| 1587 | 14739 | 27819 | 1.16 | 1.0E-09 | AF192523.1 | NT | Homo sapiens truncated Niemann-Pick C3 protein (NPC3) mRNA, complete cds |
| 1587 | 14739 | 27820 | 1.16 | 1.0E-09 | AF192523.1 | NT | Homo sapiens truncated Niemann-Pick C3 protein (NPC3) mRNA, complete cds |
| 1980 | 15123 | 28224 | 1.21 | 1.0E-09 | 4503730 | NT | Homo sapiens FK506-binding protein 8 (36kD) (FKBP6) mRNA, and translated products |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 1880 | 15123 | 28223 | 1.21 | 1.0E-98 | 4503730 | NT | Homo sapiens FK506-binding protein 6 (38kD) (FKBP6) mRNA, and translated products |
| 3154 | 16329 | 29339 | 0.63 | 1.0E-99 | J03171.1 | NT | Human interferon-alpha receptor (HuIFN-alpha-Rec) mRNA, complete cds |
| 4499 | 17639 | 30621 | 2.64 | 1.0E-98 | AF098018.1 | NT | Homo sapiens fatty acid amide hydrolase (FAAH) gene, exon 14 |
| 4499 | 17639 | 30622 | 2.64 | 1.0E-99 | AF098018.1 | NT | Homo sapiens fatty acid amide hydrolase (FAAH) gene, exon 14 |
| 6943 | 20258 | 33694 | 1.25 | 1.0E-99 | 11421007 | NT | Homo sapiens glycine receptor, alpha 2 (GLRA2), mRNA |
| 6943 | 20258 | 33695 | 1.25 | 1.0E-99 | 11421007 | NT | Homo sapiens glycine receptor, alpha 2 (GLRA2), mRNA |
| 7289 | 25842 | 33827 | 0.81 | 1.0E-99 | X88022.1 | NT | H. sapiens E8-AP gene exon 2 |
| 8400 | 22474 | | 0.75 | 1.0E-99 | 11419721 | NT | Homo sapiens ALEX1 protein (LOC51309), mRNA |
| 9720 | 22785 | 36356 | 1.7 | 1.0E-99 | AW340174.1 | EST_HUMAN | h02h02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2808371 3' similar to TR:002711 |
| 11403 | 24464 | 38128 | 2.56 | 1.0E-99 | 7427614 | NT | O02711 PRO-POL-DUTPASE POLYPROTEIN: |
| 11403 | 24464 | 38129 | 2.56 | 1.0E-99 | 7427614 | NT | Homo sapiens huntingtin interacting protein 1 (HIP1), mRNA |
| 11462 | 24521 | 38191 | 1.68 | 1.0E-99 | 5901978 | NT | Homo sapiens huntingtin interacting protein 1 (HIP1), mRNA |
| 11659 | 24738 | 38429 | 2.83 | 1.0E-99 | AB023222.1 | NT | Homo sapiens heat shock transcription factor 2 binding protein (HSF2BP), mRNA |
| 11996 | 24981 | 38687 | 2.45 | 1.0E-99 | 11417181 | NT | Homo sapiens mRNA for KIAA1005 protein, partial cds |
| 12257 | 25183 | | 4.62 | 1.0E-99 | AF240786.1 | NT | Homo sapiens leucylcystinyl aminopeptidase (LNPEP), mRNA |
| 1 | 13241 | 26241 | 1.7 | 1.0E-100 | AL163247.2 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 2 | 13241 | 26241 | 2.91 | 1.0E-100 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 70 | 13307 | 26329 | 1.62 | 1.0E-100 | 11418230 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 70 | 13307 | 26330 | 1.62 | 1.0E-100 | 11418230 | NT | Homo sapiens Testis-specific XK-related protein on Y (XKRY), mRNA |
| 89 | 13324 | 26353 | 0.82 | 1.0E-100 | AW276237.1 | EST_HUMAN | Homo sapiens Testis-specific XK-related protein on Y (XKRY), mRNA |
| 173 | 13397 | 26425 | 0.89 | 1.0E-100 | AL163206.2 | NT | x78511.x1 NCI_CGAP_Bmb3 Homo sapiens cDNA clone IMAGE:2824605 3' |
| 327 | 13541 | 26573 | 1.84 | 1.0E-100 | AL163249.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 353 | 13564 | 26592 | 1.87 | 1.0E-100 | TO5087.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C049 |
| 450 | 13546 | | 2.24 | 1.0E-100 | AF003528.1 | NT | EST02975 Fetal brain, Stratagene (cat#936206) Homo sapiens cDNA clone HFBOR32 |
| 502 | 13597 | | 5.88 | 1.0E-100 | X88631.1 | NT | Homo sapiens X-linked arylidic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 522 | 13715 | 26742 | 1.21 | 1.0E-100 | BE180609.1 | EST_HUMAN | G.gorilla DNA for ZNF80 gene homolog |
| 1044 | 14210 | 27286 | 4.57 | 1.0E-100 | 7681685 | NT | RC3-H10625-Q40500-022-509 HT0625 Homo sapiens cDNA |
| 1044 | 14210 | 27267 | 4.57 | 1.0E-100 | 7681685 | NT | Homo sapiens DKFZP88M0122 protein (DKFZP88M0122), mRNA |
| 1577 | 14730 | | 1.3 | 1.0E-100 | AW207555.1 | EST_HUMAN | Homo sapiens DKFZP88M0122 protein (DKFZP88M0122), mRNA |
| 1681 | 14733 | 27814 | 1.66 | 1.0E-100 | AI200857.1 | EST_HUMAN | UIH-B1-afic-o-07-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2722184 3' |
| | | | | | | | qf82f09.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1754633 3' similar to SW:CYT_COTJA |
| | | | | | | | P81081 CYSTATIN: |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 2315 | 15447 | | 1.14 | 1.0E-100 | D83349.1 | NT | Rat mRNA for short type PB-cadherin, complete cds |
| 2507 | 15634 | 28754 | 1.41 | 1.0E-100 | X62468.1 | NT | H. sapiens mRNA for IFN-gamma (pKC-0) |
| 2771 | 15886 | 28008 | 2.5 | 1.0E-100 | 11418976 | NT | Homo sapiens KIAA0957 protein (KIAA0957), mRNA |
| 3083 | 16259 | | 6.55 | 1.0E-100 | D11076.1 | NT | Homo sapiens RGH2 gene, retrovirus-like element |
| 4326 | 17469 | 30456 | 1.67 | 1.0E-100 | AF057354.1 | NT | Homo sapiens myotubularin-related protein 1a mRNA, partial cds |
| 4351 | 17494 | 30474 | 2.28 | 1.0E-100 | 4503792 | NT | Homo sapiens follicle stimulating hormone receptor (FSHR) mRNA |
| 5202 | 18323 | 31291 | 3.01 | 1.0E-100 | 5032104 | NT | Homo sapiens small optic lobes (Drosophila) homolog (SOLH) mRNA |
| 5202 | 18323 | 31292 | 3.01 | 1.0E-100 | 5032104 | NT | Homo sapiens small optic lobes (Drosophila) homolog (SOLH) mRNA |
| 5404 | 18606 | 31578 | 1.74 | 1.0E-100 | BF24218.1 | EST_HUMAN | Homo sapiens cDNA clone IMAGE:4080999 5' |
| 5625 | 18819 | 31893 | 0.76 | 1.0E-100 | AW075983.1 | EST_HUMAN | PROTEIN PHPS1-2 (HUMAN); |
| 5618 | 19008 | 32314 | 1.45 | 1.0E-100 | AU118182.1 | EST_HUMAN | AU118182 HEMBA1 Homo sapiens cDNA clone HEMBA1003046 5' |
| 5664 | 19054 | 32361 | 1.78 | 1.0E-100 | AF135116.1 | NT | Homo sapiens NF-E2-related factor 3 gene, complete cds |
| 5660 | 19146 | 32461 | 0.85 | 1.0E-100 | X14690.1 | NT | Human mRNA for plasma Inter-alpha-trypsin inhibitor heavy chain H(3) |
| 6292 | 19465 | 32817 | 0.9 | 1.0E-100 | 4557568 | NT | Homo sapiens ER to nucleus signalling 1 (ERN1) mRNA |
| 6292 | 19465 | 32818 | 0.9 | 1.0E-100 | 4557568 | NT | Homo sapiens ER to nucleus signalling 1 (ERN1) mRNA |
| 6626 | 19788 | 33174 | 5.82 | 1.0E-100 | AU140214.1 | EST_HUMAN | AU140214 PLACE2 Homo sapiens cDNA clone PLACE2000137 5' |
| 6824 | 19977 | 33394 | 1.36 | 1.0E-100 | R10887.1 | EST_HUMAN | Y38608.61 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:128134 3' |
| 6808 | 20223 | 33653 | 1.77 | 1.0E-100 | 7382479 | NT | Homo sapiens Rho GTPase activating protein 9 (ARHGAP9), transcript variant 4, mRNA |
| 6882 | 20210 | 33638 | 1.02 | 1.0E-100 | AA498841.1 | EST_HUMAN | ae33b06.1 Gessler Wilms tumor Homo sapiens cDNA clone IMAGE:897587 5' similar to TR:G487418 |
| 6982 | 20210 | 33639 | 1.02 | 1.0E-100 | AA498841.1 | EST_HUMAN | ae33b06.1 Gessler Wilms tumor Homo sapiens cDNA clone IMAGE:897587 5' similar to TR:G487418 |
| 7026 | 20182 | 33583 | 1.18 | 1.0E-100 | BF376476.1 | EST_HUMAN | G487418 ACTIN FILAMENT-ASSOCIATED PROTEIN ; |
| 7026 | 20182 | 33584 | 1.18 | 1.0E-100 | BF376476.1 | EST_HUMAN | MR1-TN0046-060900-004-b05 TN0046 Homo sapiens cDNA |
| 7033 | 20189 | 33591 | 6.2 | 1.0E-100 | X04571.1 | NT | MR1-TN0046-060900-004-b05 TN0046 Homo sapiens cDNA |
| 8729 | 21809 | 36345 | 3.53 | 1.0E-100 | BF103853.1 | EST_HUMAN | Human mRNA for kidney epidermal growth factor (EGF) precursor |
| 8766 | 21845 | | 5.59 | 1.0E-100 | AL163203.2 | NT | G0164735/F1 NIH_MGC_61 Homo sapiens cDNA clone IMAGE:3931310 5' |
| 9216 | 22294 | 36837 | 0.47 | 1.0E-100 | AU116851.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C003 |
| 9216 | 22294 | 36838 | 0.47 | 1.0E-100 | AU116851.1 | EST_HUMAN | AU116851 HEMBA1 Homo sapiens cDNA clone HEMBA1000343 5' |
| 9433 | 22507 | 36073 | 3.88 | 1.0E-100 | AB040918.1 | NT | AU116851 HEMBA1 Homo sapiens cDNA clone HEMBA1000343 5' |
| 9510 | 22776 | | 1.65 | 1.0E-100 | AB72388.1 | EST_HUMAN | Homo sapiens mRNA for KIAA1485 protein, partial cds |
| 9633 | 21076 | 34588 | 2.28 | 1.0E-100 | AW68881.1 | EST_HUMAN | w37g09.x1 NCL CGAP_P728 Homo sapiens cDNA clone IMAGE:2486920 3' similar to contains element MER22 repetitive element ; |
| | | | | | | | PMO-BN0065-100300-001-c06 BN0065 Homo sapiens cDNA |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Description |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 9687 | 22736 | | 0.84 | 1.0E-100 | AU12720.1 | EST_HUMAN | AU12720 NT2RP2 Homo sapiens cDNA clone NT2RP2001018 5' |
| 9688 | 22736 | | 0.84 | 1.0E-100 | AU12720.1 | EST_HUMAN | Homo sapiens mRNA for KIAA1626 protein, partial cds |
| 9782 | 22822 | 36400 | 2.17 | 1.0E-100 | AB046846.1 | NT | Homo sapiens mRNA for KIAA1626 protein, partial cds |
| 9782 | 22822 | 36401 | 2.17 | 1.0E-100 | AB046846.1 | NT | Homo sapiens mRNA for KIAA1626 protein, partial cds |
| 10048 | 23086 | 36687 | 1.81 | 1.0E-100 | AW630487.1 | EST_HUMAN | h83c11.y1 NCL CGAP_GU1 Homo sapiens cDNA clone IMAGE:2869398 5' |
| 10048 | 23086 | 36688 | 1.81 | 1.0E-100 | AW630487.1 | EST_HUMAN | h83c11.y1 NCL CGAP_GU1 Homo sapiens cDNA clone IMAGE:2869398 5' |
| 10048 | 23086 | 36689 | 1.81 | 1.0E-100 | AW630487.1 | EST_HUMAN | h83c11.y1 NCL CGAP_GU1 Homo sapiens cDNA clone IMAGE:2869398 5' |
| 10688 | 23271 | 37327 | 0.84 | 1.0E-100 | BF347519.1 | EST_HUMAN | Human endogenous retrovirus HERV-K, pol gene |
| 10782 | 23815 | | 1.38 | 1.0E-100 | Y10391.1 | NT | MRO-BN0070-270300-008-h11 BN0070 Homo sapiens cDNA |
| 10966 | 24076 | 37708 | 6.64 | 1.0E-100 | BF327292.1 | EST_HUMAN | H. sapiens CD97 gene exon 4 |
| 11664 | 24619 | 38300 | 1.56 | 1.0E-100 | X94633.1 | NT | H. sapiens CD97 gene exon 4 |
| 11664 | 24619 | 38301 | 1.55 | 1.0E-100 | X94633.1 | NT | Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene |
| 11635 | 24715 | 38405 | 3.91 | 1.0E-100 | AF11170.3 | NT | Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene |
| 11635 | 24715 | 38406 | 3.91 | 1.0E-100 | AF11170.3 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 11635 | 24715 | 38408 | 3.07 | 1.0E-100 | AL163247.2 | NT | Homo sapiens guggin-like protein (GLP) gene, complete cds |
| 11665 | 13241 | 26241 | 2.21 | 1.0E-100 | AF266285.1 | NT | Homo sapiens class gene, exon 12 |
| 11977 | 24982 | | 1.93 | 1.0E-100 | AJ131034.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) |
| 12128 | 25108 | 38812 | | | | NT | genes, complete cds |
| 12177 | 25137 | 38892 | 7.99 | 1.0E-100 | AF240796.1 | NT | 7q88h03.x1 NCL CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3' similar to TR:Q21997 Q21997 |
| 12312 | 26037 | | 1.78 | 1.0E-100 | BF446549.1 | EST_HUMAN | COSMID R151, [2] TR:Q9UA08; |
| 12493 | 26341 | 32063 | 4.97 | 1.0E-100 | 11545732 | NT | Homo sapiens SH3-domain binding protein 1 (SH3BP1), mRNA |
| 12754 | 25500 | 32033 | 1.31 | 1.0E-100 | 11418123 | NT | Homo sapiens KIAA0063 gene product (KIAA0063), mRNA |
| 13195 | 28778 | 31635 | 6.91 | 1.0E-100 | 11417874 | NT | Homo sapiens KIAA0063 gene product (KIAA0063), mRNA |
| 79 | 13315 | 26342 | 0.92 | 1.0E-101 | 7110714 | NT | Homo sapiens SEC14 (S. cerevisiae)-like 2 (SEC14L2), mRNA |
| 78 | 13315 | 26343 | 0.92 | 1.0E-101 | 7110714 | NT | Homo sapiens SEC14 (S. cerevisiae)-like 2 (SEC14L2), mRNA |
| 704 | 13887 | 26919 | 1.4 | 1.0E-101 | AB007815.2 | NT | Homo sapiens mRNA for KIAA0446 protein, partial cds |
| 722 | 13904 | 26945 | 6.12 | 1.0E-101 | 7110734 | NT | Homo sapiens ventral anterior homeobox 2 (VAX2), mRNA |
| 722 | 13904 | 26946 | 6.12 | 1.0E-101 | 7110734 | NT | Homo sapiens ventral anterior homeobox 2 (VAX2), mRNA |
| 792 | 13971 | 27023 | 1.37 | 1.0E-101 | 7687454 | NT | Homo sapiens pascadillo (zabrafish) homolog 1, containing BRCT domain (PES1), mRNA |
| 876 | 14052 | 27117 | 1.35 | 1.0E-101 | 4503914 | NT | Homo sapiens phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide synthetase, phosphoribosylaminimidazole synthetase (GART) mRNA |
| 948 | 14121 | 27182 | 0.85 | 1.0E-101 | Z20666.1 | NT | Homo sapiens of cardiac alpha-myosin heavy chain gene |
| 1009 | 14180 | 27243 | 6.07 | 1.0E-101 | BF881219.1 | EST_HUMAN | 602158474F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4297291 5' |
| 1077 | 14243 | 27258 | 1.39 | 1.0E-101 | AJ21878.1 | EST_HUMAN | g89e09.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1843336 3' |
| 1614 | 14787 | 27848 | 1.44 | 1.0E-101 | 5921460 | NT | Homo sapiens butyrophilin, subfamily 2, member A1 (BTN2A1), mRNA |

Page 438 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO. | Exon SEQ ID NO. | ORF SEQ ID NO. | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 1814 | 14797 | 27850 | 1.44 | 1.0E-101 | 5921460 | NT | Homo sapiens butyrophilin, subfamily 2, member A1 (BTN2A1), mRNA |
| 1785 | 14934 | 28028 | 1.57 | 1.0E-101 | 7682183 | NT | Homo sapiens KIAA0569 gene product (KIAA0569), mRNA |
| 1785 | 14934 | 28029 | 1.57 | 1.0E-101 | 7682183 | NT | Homo sapiens KIAA0569 gene product (KIAA0569), mRNA |
| 1899 | 16140 | 28247 | 2.07 | 1.0E-101 | 4502886 | NT | Homo sapiens carboxypeptidase A1 (pancreatic) (CPA1), mRNA |
| 2116 | 15254 | 28373 | 2.76 | 1.0E-101 | BE943070.1 | EST_HUMAN | RC3-ST0281-100600-016-H09 ST0281 Homo sapiens cDNA |
| 2425 | 16092 | 28880 | 1.2 | 1.0E-101 | 5728892 | NT | Homo sapiens A kinase (PRKA) anchor protein 6 (AKAP6), mRNA |
| 2680 | 15800 | 28917 | 4.62 | 1.0E-101 | X72693.1 | NT | H. sapiens EWS gene, exon 5 |
| 2802 | 15916 | 29025 | 9.27 | 1.0E-101 | AJ237744.1 | NT | Homo sapiens RIBIR gene (partial), exon 12 |
| 2802 | 15916 | 29026 | 9.27 | 1.0E-101 | AJ237744.1 | NT | Homo sapiens RIBIR gene (partial), exon 12 |
| 3020 | 16196 | | 20.16 | 1.0E-101 | AJ262312.1 | NT | Homo sapiens genomic downstream Rheus box |
| 3273 | 16447 | 29467 | 2.97 | 1.0E-101 | 4885270 | NT | Homo sapiens gamma-glutamyltransferase 1 (GGT1), mRNA |
| 3313 | 16486 | | 2.3 | 1.0E-101 | BF035327.1 | EST_HUMAN | 601458531F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3862086 5' |
| 3468 | 16535 | 29654 | 1.82 | 1.0E-101 | AW66556.1 | EST_HUMAN | EST377629 IMAGE resequences, MAGI Homo sapiens cDNA |
| 3487 | 15916 | 29025 | 3.69 | 1.0E-101 | AJ237744.1 | NT | Homo sapiens RIBIR gene (partial), exon 12 |
| 3487 | 15916 | 29026 | 3.69 | 1.0E-101 | AJ237744.1 | NT | Homo sapiens RIBIR gene (partial), exon 12 |
| 3981 | 17138 | 30142 | 3.81 | 1.0E-101 | AB022785.1 | NT | Homo sapiens RIBIR gene (partial), exon 12 |
| 5147 | 18269 | 31239 | 1.14 | 1.0E-101 | 5921460 | NT | Homo sapiens butyrophilin, subfamily 2, member A1 (BTN2A1), mRNA |
| 5147 | 18269 | 31240 | 1.14 | 1.0E-101 | 5921460 | NT | Homo sapiens butyrophilin, subfamily 2, member A1 (BTN2A1), mRNA |
| 5248 | 18368 | 31336 | 0.6 | 1.0E-101 | BE12564.1 | EST_HUMAN | 601462087F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3865761 5' |
| 5248 | 18369 | 31337 | 0.6 | 1.0E-101 | BE12564.1 | EST_HUMAN | 601462087F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3865761 5' |
| 5433 | 18633 | 31611 | 1.94 | 1.0E-101 | AW665139.1 | EST_HUMAN | EST377212 IMAGE resequences, MAGI Homo sapiens cDNA |
| 6126 | 19305 | 32645 | 4.07 | 1.0E-101 | 7427512 | NT | Homo sapiens cytoplasmic linker 2 (CYLN2), mRNA |
| 6126 | 19305 | 32646 | 4.07 | 1.0E-101 | 7427512 | NT | Homo sapiens cytoplasmic linker 2 (CYLN2), mRNA |
| 6834 | 19887 | 33366 | 0.96 | 1.0E-101 | 11430734 | NT | Homo sapiens carbonic anhydrase VII (CA7), mRNA |
| 7423 | 20500 | | 1.28 | 1.0E-101 | 11545780 | NT | Homo sapiens hypothetical protein FLJ22087 (FLJ22087), mRNA |
| 7473 | 20548 | 34019 | 4.22 | 1.0E-101 | AF208970.1 | NT | Homo sapiens Kruppel-type zinc finger protein (PEG3), mRNA, alternative splice form 4, partial cds |
| 7473 | 20548 | 34020 | 4.22 | 1.0E-101 | AF208970.1 | NT | Homo sapiens Kruppel-type zinc finger protein (PEG3), mRNA, alternative splice form 4, partial cds |
| 7645 | 20714 | 34192 | 7.65 | 1.0E-101 | AW008475.1 | EST_HUMAN | w55f12.x1 NGL CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2633487 3' |
| 7749 | 20809 | | 1.99 | 1.0E-101 | BE267384.1 | EST_HUMAN | 601108217F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3346901 5' |
| 7900 | 20952 | 34459 | 6.64 | 1.0E-101 | BF330759.1 | EST_HUMAN | RC1-BT0313-220700-018-f12 BT0313 Homo sapiens cDNA |
| 8097 | 21179 | 34698 | 0.74 | 1.0E-101 | BE275821.1 | EST_HUMAN | 601121621F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3345869 5' |
| 8097 | 21179 | 34697 | 0.74 | 1.0E-101 | BE275821.1 | EST_HUMAN | 601121621F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3345869 5' |
| 8246 | 21827 | 34843 | 1.6 | 1.0E-101 | BF029174.1 | EST_HUMAN | 601764686F1 NIH_MGC_63 Homo sapiens cDNA clone IMAGE:3996937 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8517 | 21598 | 35132 | 0.71 | 1.0E-101 | AW630070.1 | EST_HUMAN | hh74g10.y1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:288578 5' similar to gb:J03143 |
| 8517 | 21598 | 35133 | 0.71 | 1.0E-101 | AW630070.1 | EST_HUMAN | INTERFERON-GAMMA RECEPTOR ALPHA CHAIN PRECURSOR (HUMAN); hh74g10.y1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:288578 5' similar to gb:J03143 |
| 9212 | 22290 | 35832 | 1.1 | 1.0E-101 | AA036800.1 | EST_HUMAN | INTERFERON-GAMMA RECEPTOR ALPHA CHAIN PRECURSOR (HUMAN); hh74g10.y1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:288578 5' similar to gb:J03143 |
| 8631 | 22596 | 36167 | 0.89 | 1.0E-101 | AB037772.1 | NT | PIR:S54640 S54640 YD8335.03c protein - yeast; |
| 9531 | 22598 | 36168 | 0.99 | 1.0E-101 | AB037772.1 | NT | Homo sapiens mRNA for KIAA1351 protein, partial cds |
| 9661 | 21103 | 34619 | 17.36 | 1.0E-101 | X60069.1 | NT | Homo sapiens mRNA for KIAA1351 protein, partial cds |
| 9661 | 21103 | 34620 | 17.36 | 1.0E-101 | X60069.1 | NT | Human mRNA for pancreatic gamma-glutamyltransferase |
| 9676 | 22638 | 36209 | 19.41 | 1.0E-101 | 9845492 | NT | Human mRNA for pancreatic gamma-glutamyltransferase |
| 9959 | 22698 | 36593 | 3.36 | 1.0E-101 | BE619687.1 | EST_HUMAN | Homo sapiens gamma-glutamyltransferase 1 (GGT1), transcript variant 3, mRNA |
| 9959 | 22698 | 36594 | 3.36 | 1.0E-101 | BE619687.1 | EST_HUMAN | 601472808T1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3876953 3' |
| 10098 | 23135 | 36737 | 0.68 | 1.0E-101 | 10663990 | NT | 601472808T1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3876953 3' |
| 10620 | 23654 | 37264 | 1.94 | 1.0E-101 | 11429127 | NT | Homo sapiens potassium channel, subfamily K, member 10 (KCNK10), mRNA |
| 10656 | 23690 | 37269 | 4.37 | 1.0E-101 | A1570283.1 | EST_HUMAN | Homo sapiens Janus kinase 2 (a protein tyrosine kinase) (JAK2), mRNA |
| 10656 | 23690 | 37300 | 4.37 | 1.0E-101 | A1570283.1 | EST_HUMAN | KERATIN, TYPE I CYTOSKELETAL 18 (HUMAN); |
| 10771 | 23804 | 37426 | 0.83 | 1.0E-101 | BE973648.1 | EST_HUMAN | 6077d11.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2184309 3' similar to gb:M26328 |
| 10771 | 23804 | 37427 | 0.83 | 1.0E-101 | BE973648.1 | EST_HUMAN | KERATIN, TYPE I CYTOSKELETAL 18 (HUMAN); |
| 11371 | 24432 | 38089 | 1.31 | 1.0E-101 | AB020626.1 | NT | 601680825F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:3950887 5' |
| 12059 | 25040 | 38748 | 1.85 | 1.0E-101 | A1908188.1 | EST_HUMAN | 601680825F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:3950887 5' |
| 12059 | 25040 | 38749 | 1.85 | 1.0E-101 | A1908188.1 | EST_HUMAN | Homo sapiens mRNA for KIAA0819 protein, partial cds |
| 12738 | 25489 | | 2.24 | 1.0E-101 | BE163587.1 | EST_HUMAN | RC-BT163-290499-085 BT163 Homo sapiens cDNA |
| 12763 | 25529 | | 12.79 | 1.0E-101 | AW639051.1 | EST_HUMAN | RC-BT163-290499-085 BT163 Homo sapiens cDNA |
| 40 | 13278 | 26284 | 0.61 | 1.0E-102 | AF012872.1 | NT | QV3-HT0460-230200-101-103 HT0460 Homo sapiens cDNA |
| 351 | 13592 | 26599 | 4.57 | 1.0E-102 | AL163303.2 | NT | QV1-DT0068-240200-085-a01 DT0068 Homo sapiens cDNA |
| 835 | 13820 | 26844 | 0.61 | 1.0E-102 | BE252470.1 | EST_HUMAN | Homo sapiens phosphatidylinositol 4-kinase 230 (p4K230) mRNA, complete cds |
| 766 | 13975 | 27028 | 1.06 | 1.0E-102 | 4657634 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 1141 | 14306 | 27362 | 1.9 | 1.0E-102 | M10976.1 | NT | 601108292F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3344328 5' |
| 1297 | 14453 | 27518 | 2.05 | 1.0E-102 | 11437146 | NT | Human endogenous retroviral DNA (4-1), complete retroviral segment |
| 1297 | 14453 | 27619 | 2.06 | 1.0E-102 | 11437146 | NT | Homo sapiens solute carrier family 2 (facilitated glucose transporter), member 9 (SLC2A9), mRNA |
| 1450 | 14603 | 27681 | 355.9 | 1.0E-102 | BE408447.1 | EST_HUMAN | Homo sapiens solute carrier family 2 (facilitated glucose transporter), member 9 (SLC2A9), mRNA |

Page 438 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 2383 | 15514 | 28842 | 1.91 | 1.0E-102 | AI124688.1 | EST_HUMAN | am60c10.x1 Johnston frontal cortex Homo sapiens cDNA clone IMAGE:1639854 3' similar to SW:GG95_HUMAN Q08379 GOLGIN-95 ; |
| 2383 | 15514 | 28843 | 1.91 | 1.0E-102 | AI124688.1 | EST_HUMAN | am60c10.x1 Johnston frontal cortex Homo sapiens cDNA clone IMAGE:1639854 3' similar to SW:GG95_HUMAN Q08379 GOLGIN-95 ; |
| 3090 | 16266 | | 0.74 | 1.0E-102 | Y13932.1 | NT | Homo sapiens PRKY exon 7 |
| 3133 | 16309 | 29322 | 1.47 | 1.0E-102 | 7661979 | NT | Homo sapiens KIAA0187 gene product (KIAA0187), mRNA |
| 3203 | 16378 | 29387 | 3.73 | 1.0E-102 | AU141005.1 | EST_HUMAN | AU141005 PLACE4 Homo sapiens cDNA clone PLACE4000650 5' |
| 3203 | 16378 | 29388 | 3.73 | 1.0E-102 | AU141005.1 | EST_HUMAN | AU141005 PLACE4 Homo sapiens cDNA clone PLACE4000650 5' |
| 4347 | 17490 | 30472 | 1.74 | 1.0E-102 | AL163207.2 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 4633 | 17871 | 30856 | 2.57 | 1.0E-102 | BE251310.1 | EST_HUMAN | 601107843F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:3343882 5' |
| 6224 | 18346 | 31316 | 1.28 | 1.0E-102 | R69488.1 | EST_HUMAN | X32c04.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:140834 5' |
| 5487 | 18586 | 31704 | 1.6 | 1.0E-102 | AF087133.1 | NT | Homo sapiens protein phosphatase-1 regulatory subunit 7 (PPP1R7) gene, exon 7 |
| 5867 | 19057 | | 6.87 | 1.0E-102 | AB034951.1 | NT | Homo sapiens HSC54 mRNA for heat shock cognate protein 54, complete cds |
| 5805 | 19094 | 32408 | 3.25 | 1.0E-102 | 7706398 | NT | Homo sapiens histone deacetylase 7 (HDAC7), mRNA |
| 5805 | 19094 | 32409 | 3.25 | 1.0E-102 | 7706398 | NT | Homo sapiens histone deacetylase 7 (HDAC7), mRNA |
| 5912 | 19100 | 32414 | 0.81 | 1.0E-102 | 11433046 | NT | Homo sapiens histone deacetylase 7 (HDAC7), mRNA |
| 6422 | 19591 | 32966 | 2.81 | 1.0E-102 | AI459825.1 | EST_HUMAN | Homo sapiens hct domain and RLD 2 (HERC2), mRNA |
| 7227 | 20080 | 33507 | 0.7 | 1.0E-102 | AW451843.1 | EST_HUMAN | ar6209.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2151786 3' similar to TR:Q13137 Q13137 NDP52 ; |
| 7286 | 20369 | 33823 | 0.91 | 1.0E-102 | BE729323.1 | EST_HUMAN | UI-H-813-ajl-4-10-04JLs1 NCL_CGAP_Sub55 Homo sapiens cDNA clone IMAGE:2736835 3' |
| 7314 | 20396 | 33859 | 1.02 | 1.0E-102 | BE368106.1 | EST_HUMAN | 601581505F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3831241 5' |
| 7429 | 20508 | 33977 | 1.6 | 1.0E-102 | AB023177.1 | NT | 601277215F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3618243 5' |
| 7510 | 20584 | 34057 | 8.03 | 1.0E-102 | AJ238994.1 | NT | Homo sapiens mRNA for Centaurin-alpha2 protein |
| 7802 | 20858 | 34350 | 2.81 | 1.0E-102 | AV710738.1 | EST_HUMAN | Homo sapiens mRNA for KIAA0960 protein, partial cds |
| 8418 | 21499 | 35031 | 3.85 | 1.0E-102 | BE763051.1 | EST_HUMAN | Homo sapiens cDNA clone CUAARD03 5' |
| 8691 | 21771 | 35301 | 1.71 | 1.0E-102 | AV694817.1 | EST_HUMAN | QV3-NT0025-210600-236-H08 NT0025 Homo sapiens cDNA |
| 8691 | 21771 | 35302 | 1.71 | 1.0E-102 | AV694817.1 | EST_HUMAN | AV694817 GKCC Homo sapiens cDNA clone GKCEEE11 5' |
| 8802 | 21881 | 35419 | 0.81 | 1.0E-102 | AB007923.1 | NT | AV694817 GKCC Homo sapiens cDNA clone GKCEEE11 5' |
| 9131 | 22210 | 35764 | 1.2 | 1.0E-102 | BE388063.1 | EST_HUMAN | Homo sapiens mRNA for KIAA0454 protein, partial cds |
| 9131 | 22210 | 35765 | 1.2 | 1.0E-102 | BE388063.1 | EST_HUMAN | 601283770F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3605636 5' |
| 9481 | 22538 | 36102 | 0.84 | 1.0E-102 | AV755842.1 | EST_HUMAN | 601283770F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3605636 5' |
| 9522 | 22587 | 36155 | 2 | 1.0E-102 | T70393.1 | EST_HUMAN | AV755842 BM Homo sapiens cDNA clone BMAUD08 5' |
| 9522 | 22587 | 36156 | 2 | 1.0E-102 | T70393.1 | EST_HUMAN | Yd13407.r1 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:87021 5' |
| 9611 | 22666 | 36237 | 3.11 | 1.0E-102 | AU124628.1 | EST_HUMAN | Yd13407.r1 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:87021 5' |
| | | | | | | | AU124628 NT2RM4 Homo sapiens cDNA clone NT2RM400309 5' |

Table 4
Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 10583 | 23628 | | 0.64 | 1.0E-102 | AF153715.1 | NT | Homo sapiens phospholipid scramblase 1 gene, exon 1 and 5' flanking region |
| 10847 | 23681 | 37281 | 0.67 | 1.0E-102 | 11425430 | NT | Homo sapiens myomesin (M-protein) 2 (165kD) (MYOM2), mRNA |
| 10847 | 23681 | 37282 | 0.67 | 1.0E-102 | 11425430 | NT | Homo sapiens myomesin (M-protein) 2 (165kD) (MYOM2), mRNA |
| 10887 | 23720 | 37325 | 3.26 | 1.0E-102 | AI805037.1 | EST_HUMAN | RC-BT074-260499-014 BT074 Homo sapiens cDNA |
| 10887 | 23720 | 37326 | 3.26 | 1.0E-102 | AI805037.1 | EST_HUMAN | RC-BT074-260499-014 BT074 Homo sapiens cDNA |
| 10748 | 23781 | 37394 | 1.5 | 1.0E-102 | AA970786.1 | EST_HUMAN | on57h04.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1560823 3' similar to |
| 11323 | 24386 | 38030 | 1.37 | 1.0E-102 | BE997468.1 | EST_HUMAN | SW-CAV2_HUMAN P61888 CAVEOLIN-2, [1]; |
| 11327 | 24386 | 38035 | 2.44 | 1.0E-102 | 4507822 | NT | Homo sapiens UDP glycosyltransferase 2 family, polypeptide B11 (UGT2B11) mRNA |
| 11327 | 24386 | 38036 | 2.44 | 1.0E-102 | 4507822 | NT | Homo sapiens UDP glycosyltransferase 2 family, polypeptide B11 (UGT2B11) mRNA |
| 11800 | 24653 | 38337 | 1.47 | 1.0E-102 | AA888876.1 | EST_HUMAN | ak9h10.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1409347 3' |
| 11890 | 24688 | 38378 | 2.47 | 1.0E-102 | BF359243.1 | EST_HUMAN | RC6-ET0072-150600-011-F01 ET0072 Homo sapiens cDNA |
| 12009 | 24694 | 38699 | 2.83 | 1.0E-102 | U41302.1 | NT | Human chromosome 19 creatine transporter (SLC6A8) and (CDM) paralogous genes, complete cds |
| 12182 | 25142 | | 5.69 | 1.0E-102 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 12775 | 25517 | 32000 | 5.67 | 1.0E-102 | AW300862.1 | EST_HUMAN | X607C12.X1 NCL_CGAP_O20 Homo sapiens cDNA clone IMAGE:2666038 3' |
| 12831 | 25553 | 32015 | 1.25 | 1.0E-102 | 11419159 | NT | Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (t(11q23) (Drosophila) homolog), translocated to, 4 (MLLT4), mRNA |
| 71 | 13308 | 26331 | 0.85 | 1.0E-103 | BE908158.1 | EST_HUMAN | 601500405F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3902305 5' |
| 71 | 13308 | 26332 | 0.85 | 1.0E-103 | BE908158.1 | EST_HUMAN | 601500405F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3902305 5' |
| 102 | 13336 | 26355 | 8.24 | 1.0E-103 | D87078.2 | NT | Homo sapiens mRNA for KIAA0235 protein, partial cds |
| 213 | 13436 | 26466 | 0.84 | 1.0E-103 | 5453793 | NT | Homo sapiens nucleolar protein (KRED repeat) (NOP56) mRNA |
| 1004 | 14176 | 27234 | 74.34 | 1.0E-103 | AJ278348.1 | NT | Homo sapiens mRNA for pregnancy-associated plasma protein-E (PAPPE gene) |
| 1272 | 14429 | 27600 | 7.08 | 1.0E-103 | BE877541.1 | EST_HUMAN | 801483388F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3887878 5' |
| 1626 | 14778 | 27863 | 3.51 | 1.0E-103 | AF012872.1 | NT | Homo sapiens phosphatidylinositol 4-kinase 230 (p14K230) mRNA, complete cds |
| 1964 | 15107 | 28207 | 1.02 | 1.0E-103 | 7557592 | NT | Homo sapiens smg GDS-ASSOCIATED PROTEIN (SMAP), mRNA |
| 2031 | 15172 | 28290 | 0.95 | 1.0E-103 | 4502428 | NT | Homo sapiens bone morphogenetic protein 8 (osteogenic protein 2) (BMP8) mRNA |
| 2031 | 15172 | 28281 | 0.95 | 1.0E-103 | 4502428 | NT | Homo sapiens bone morphogenetic protein 8 (osteogenic protein 2) (BMP8) mRNA |
| 2379 | 15510 | 28638 | 1.95 | 1.0E-103 | AU134891.1 | EST_HUMAN | AU134891 PLACE1 Homo sapiens cDNA clone PLACE1000865 5' |
| 2823 | 15548 | 28772 | 1.84 | 1.0E-103 | AF060568.1 | NT | Homo sapiens promyelocytic leukemia zinc finger protein (PLZF) gene, complete cds |
| 2885 | 15505 | 28921 | 1 | 1.0E-103 | N32770.1 | EST_HUMAN | w91d08.s1 Soares_placenta_8weeks_ZNBP8b9W Homo sapiens cDNA clone IMAGE:269599 3' |
| 3137 | 18313 | | 2.78 | 1.0E-103 | BE744722.1 | EST_HUMAN | 60167313F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3834315 5' |
| 3487 | 18534 | 29653 | 5.33 | 1.0E-103 | AW288245.1 | EST_HUMAN | UI-H-BW0-ajh-h-11-0-U1.s1 NCL_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:2733165 3' |

Page 440 of 550

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 3528 | 16691 | 29700 | 0.95 | 1.0E-103 | AB040892.1 | NT | Homo sapiens mRNA for KIAA1459 protein, partial cds |
| 3550 | 17010 | | 5.46 | 1.0E-103 | AF023861.1 | NT | Macaca mulatta cyclophilin A mRNA, complete cds |
| 3594 | 17053 | 30053 | 0.9 | 1.0E-103 | AA485663.1 | EST_HUMAN | db10d12.s1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:840407 3' similar to contains element LTR10 repetitive element ; |
| 3933 | 17092 | 30090 | 1.54 | 1.0E-103 | 11430876 | NT | Homo sapiens neuropilin 1 (NRP1), mRNA |
| 4110 | 17264 | 30264 | 4.63 | 1.0E-103 | T23683.1 | EST_HUMAN | seq340 b4HB3MA-Cat109+10-Bic-73' |
| 5325 | 18438 | | 0.63 | 1.0E-103 | AA451616.1 | EST_HUMAN | z43b04.r1 Scores, total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:789199 6' similar to TR:G282352 G282352 COLLAGEN CHAIN RH ; |
| 6056 | 19238 | 32563 | 0.9 | 1.0E-103 | BF58827.1 | EST_HUMAN | 602186023F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4310573 6' |
| 6063 | 19245 | 32571 | 1.67 | 1.0E-103 | AF178965.1 | NT | Homo sapiens septin 2 (SEP2) mRNA, partial cds |
| 6397 | 19555 | 32928 | 0.8 | 1.0E-103 | 11435053 | NT | Homo sapiens KIAA0440 protein (KIAA0440), mRNA |
| 6397 | 19556 | 32927 | 0.8 | 1.0E-103 | 11435053 | NT | Homo sapiens KIAA0440 protein (KIAA0440), mRNA |
| 6587 | 19748 | 33130 | 0.84 | 1.0E-103 | AW954566.1 | EST_HUMAN | EST366836 MAGC resequences, MAGC Homo sapiens cDNA |
| 6587 | 19748 | 33131 | 0.84 | 1.0E-103 | AW954566.1 | EST_HUMAN | EST366836 MAGC resequences, MAGC Homo sapiens cDNA |
| 6725 | 25831 | 33273 | 1.15 | 1.0E-103 | AA781442.1 | EST_HUMAN | aj28e03.e1 Scores, testis_NHT Homo sapiens cDNA clone 1391452 3' |
| 6768 | 19924 | 33318 | 0.91 | 1.0E-103 | AF053490.1 | NT | Homo sapiens glycine receptor alpha 2 subunit (GLRA2) gene, exon 4 |
| 6859 | 20011 | 33422 | 1.66 | 1.0E-103 | AI590071.1 | EST_HUMAN | tm58505.x1 NCI CGAP_Bim25 Homo sapiens cDNA clone IMAGE:2162289 3' similar to TR:Q13769 |
| 6859 | 20011 | 33423 | 1.66 | 1.0E-103 | AI590071.1 | EST_HUMAN | Q13769 ANONYMOUS ; |
| 6887 | 18506 | 31521 | 1.77 | 1.0E-103 | 5032282 | NT | tm58505.x1 NCI CGAP_Bim25 Homo sapiens cDNA clone IMAGE:2162289 3' similar to TR:Q13769 |
| 6887 | 18506 | 31522 | 1.77 | 1.0E-103 | 5032282 | NT | Q13769 ANONYMOUS ; |
| 7108 | 18535 | 31490 | 1.04 | 1.0E-103 | 11431100 | NT | Homo sapiens dystrophin (muscular dystrophy, Duchenne and Becker types), includes DXS142, DXS164, DXS206, DXS230, DXS239, DXS268, DXS269, DXS270, DXS272 (DMD), transcript variant Dp427m, mRNA |
| 7178 | 20310 | 33753 | 0.88 | 1.0E-103 | AJ289880.1 | NT | Homo sapiens ribosomal protein L3-like (RPL3L), mRNA |
| 7375 | 20454 | 33919 | 1.88 | 1.0E-103 | AW965778.1 | EST_HUMAN | Homo sapiens KIAA0851 gene (partial), X13 gene and LZTFL1 gene |
| 7488 | 20563 | 34032 | 3.6 | 1.0E-103 | BE748158.1 | EST_HUMAN | EST377849 MAGC resequences, MAGI Homo sapiens cDNA |
| 7651 | 21001 | 34511 | 4 | 1.0E-103 | AI590071.1 | EST_HUMAN | EST377849 MAGC resequences, MAGI Homo sapiens cDNA |
| 7651 | 21001 | 34512 | 4 | 1.0E-103 | AI590071.1 | EST_HUMAN | 801571537F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:3898545 5' |
| 7951 | 21001 | 34512 | 4 | 1.0E-103 | AI590071.1 | EST_HUMAN | tm58505.x1 NCI CGAP_Bim25 Homo sapiens cDNA clone IMAGE:2162289 3' similar to TR:Q13769 |
| 7951 | 21001 | 34512 | 4 | 1.0E-103 | AI590071.1 | EST_HUMAN | Q13769 ANONYMOUS ; |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8484 | 21565 | 35101 | 0.59 | 1.0E-103 | T31080.1 | EST_HUMAN | EST27183 Human Brain Homo sapiens cDNA 5' end similar to None |
| 8822 | 21601 | 35440 | 1.05 | 1.0E-103 | AU140344.1 | EST_HUMAN | AU140344 PLACE2 Homo sapiens cDNA clone PLACE200374 5' |
| 8822 | 21601 | 35441 | 1.05 | 1.0E-103 | AU140344.1 | EST_HUMAN | AU140344 PLACE2 Homo sapiens cDNA clone PLACE200374 5' |
| 8900 | 21979 | 35518 | 1.34 | 1.0E-103 | BF109244.1 | EST_HUMAN | 7160e03.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3525964 3' similar to SW:PTNF_HUMAN Q1825 PROTEIN-TYROSINE PHOSPHATASE D1 ; |
| 9307 | 22383 | 35934 | 3.18 | 1.0E-103 | 6005921 | NT | Homo sapiens triple functional domain (PTPRF interacting) (TRIO), mRNA |
| 9307 | 22383 | 35935 | 3.18 | 1.0E-103 | 6005921 | NT | Homo sapiens triple functional domain (PTPRF interacting) (TRIO), mRNA |
| 9349 | 22425 | 35980 | 0.97 | 1.0E-103 | AA581088.1 | EST_HUMAN | nt13c02.a1 NCL_CGAP_Ov1 Homo sapiens cDNA clone IMAGE:900162 3' similar to gbL02426 28S |
| 10263 | 23298 | 36896 | 2.04 | 1.0E-103 | T31976.1 | NT | PROTEASE SUBUNIT 4 (HUMAN); |
| 10304 | 23339 | 36944 | 2.07 | 1.0E-103 | AW883678.1 | EST_HUMAN | H_sapiens mRNA for latent transforming growth factor-beta binding protein (LTBP-2) |
| 10443 | 23478 | 37083 | 10.70 | 1.0E-103 | A1878056.1 | EST_HUMAN | eu51g04.y1 Schneider fatal brain 00004 Homo sapiens cDNA clone IMAGE:2516328 5' similar to TR:O15046 O15046 KIA0338 ; |
| 10878 | 23963 | 37591 | 1.52 | 1.0E-103 | BE549706.1 | EST_HUMAN | 7b41f03.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3230813 3' similar to gbM68043 MAJOR HISTOCOMPATIBILITY COMPLEX ENHANCER-BINDING PROTEIN (HUMAN); |
| 10971 | 24051 | 37884 | 9.5 | 1.0E-103 | A1782759.1 | EST_HUMAN | c02006.y5 NCL_CGAP_Lu6 Homo sapiens cDNA clone IMAGE:1622283 5' similar to TR:Q82084 Q82084 PHOSPHOLIPASE C NEIGHBORING ; |
| 11072 | 24147 | 37785 | 2.45 | 1.0E-103 | 11424061 | NT | Homo sapiens AXL receptor tyrosine kinase (AXL), mRNA |
| 11072 | 24147 | 37786 | 2.45 | 1.0E-103 | 11424061 | NT | Homo sapiens AXL receptor tyrosine kinase (AXL), mRNA |
| 11083 | 24157 | 37794 | 2.4 | 1.0E-103 | AF149773.1 | NT | Homo sapiens NOD1 protein (NOD1) gene, exons 1, 2, and 3 |
| 11083 | 24157 | 37795 | 2.4 | 1.0E-103 | AF149773.1 | NT | Homo sapiens NOD1 protein (NOD1) gene, exons 1, 2, and 3 |
| 11656 | 24735 | 38426 | 2.67 | 1.0E-103 | AU135283.1 | EST_HUMAN | AU135283 PLACE1 Homo sapiens cDNA clone PLACE1003923 5' |
| 11731 | 23917 | 37642 | 4.1 | 1.0E-103 | L43610.1 | NT | Homo sapiens polycystic kidney disease (PKD1) gene, exons 27-30 |
| 11868 | 24963 | | 1.71 | 1.0E-103 | AB024759.1 | NT | Homo sapiens TSA305 gene, exon 16 |
| 12044 | 25025 | 38730 | 2.28 | 1.0E-103 | BE844611.1 | EST_HUMAN | 7e68a10.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3287610 3' similar to contains MER29.B MER29 repetitive element ; |
| 12178 | 25138 | | 3.4 | 1.0E-103 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 |
| 12209 | 25162 | | 1.22 | 1.0E-103 | 11526291 | NT | Homo sapiens hypothelial protein FLJ20454 (FLJ20454), mRNA |
| 12414 | 26283 | 32083 | 1.71 | 1.0E-103 | AB011398.1 | NT | Homo sapiens gene for AF-8, complete cde |
| 243 | 13465 | 26494 | 2.46 | 1.0E-104 | AL037549.3 | EST_HUMAN | DKFZp564H1072_r1 564 (synonym: hfb2) Homo sapiens cDNA clone DKFZp564H1072 5' |
| 243 | 13465 | 26495 | 2.46 | 1.0E-104 | AL037549.3 | EST_HUMAN | DKFZp564H1072_r1 504 (synonym: hfb2) Homo sapiens cDNA clone DKFZp564H1072 5' |
| 1037 | 15080 | 28482 | 1.92 | 1.0E-104 | 4502428 | NT | Homo sapiens barophilic protein 8 (osipotent protein 2) (RAMP2), mRNA |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 2267 | 15400 | 28528 | 33.29 | 1.0E-104 | AA132975.1 | EST_HUMAN | z022c08.s1 Stratiogene colon (#937204) Homo sapiens cDNA clone IMAGE:587628 3' similar to |
| 2277 | 15409 | 28540 | 4.55 | 1.0E-104 | BE744828.1 | EST_HUMAN | gb:Z14116_maf CD89 GLYCOPROTEIN PRECURSOR (HUMAN); |
| 2442 | 15570 | 28698 | 9.73 | 1.0E-104 | BF334221.1 | EST_HUMAN | 601577460F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3928438 5' |
| 2442 | 15570 | 28698 | 9.73 | 1.0E-104 | BF334221.1 | EST_HUMAN | RC1-CT0249-110900-214-112 CT0249 Homo sapiens cDNA |
| 2506 | 15633 | 28753 | 2 | 1.0E-104 | 5031570 | NT | RC1-CT0249-110900-214-112 CT0249 Homo sapiens cDNA |
| 2634 | 16111 | 28126 | 17.89 | 1.0E-104 | M34671.1 | NT | Homo sapiens ARP2 (actin-related protein 2, yeast) homolog (ACTR2), mRNA |
| 2983 | 16159 | | 2.15 | 1.0E-104 | Y11151.1 | NT | Human lymphocyte antigen CD59/MEIM43 mRNA, complete cds |
| 3337 | 16510 | 28626 | 0.89 | 1.0E-104 | AU133926.1 | EST_HUMAN | H-sapiens gene encoding phenylpyruvate tautomerase II |
| 3478 | 16645 | | 2.33 | 1.0E-104 | AA319436.1 | EST_HUMAN | AU133926 OVARGC1 Homo sapiens cDNA clone OVARGC1000938 5' |
| 3690 | 16852 | 28680 | 0.65 | 1.0E-104 | AB033102.1 | NT | EST217659 Adrenal gland tumor Homo sapiens cDNA 5' end |
| 3690 | 16852 | 28681 | 0.65 | 1.0E-104 | AB033102.1 | NT | Homo sapiens mRNA for KIAA1276 protein, partial cds |
| 4053 | 17209 | 30219 | 0.71 | 1.0E-104 | AB032998.1 | NT | Homo sapiens mRNA for KIAA1276 protein, partial cds |
| 4248 | 17394 | 30383 | 0.71 | 1.0E-104 | F11745.1 | EST_HUMAN | Homo sapiens mRNA for KIAA1172 protein, partial cds |
| 4496 | 17636 | 30618 | 33.85 | 1.0E-104 | X02761.1 | NT | HSC31A071 normalized infant brain cDNA Homo sapiens cDNA clone c-31a07 |
| 4732 | 17897 | 30849 | 1.2 | 1.0E-104 | AF231920.1 | NT | Human mRNA for fibronectin (FN precursor) |
| 4732 | 17897 | 30850 | 1.2 | 1.0E-104 | AF231920.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 6061 | 18243 | 32687 | 1.05 | 1.0E-104 | U43379.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 6061 | 18243 | 32688 | 1.05 | 1.0E-104 | U43379.1 | NT | Human Down Syndrome region of chromosome 21 DNA |
| 6108 | 18288 | 32623 | 0.83 | 1.0E-104 | AB017332.1 | NT | Human Down Syndrome region of chromosome 21 DNA |
| 6596 | 19756 | 33142 | 8.5 | 1.0E-104 | A1768797.1 | EST_HUMAN | Homo sapiens alic3 mRNA for Aurora/pl1-related kinase 3, complete cds |
| 6596 | 19756 | 33143 | 8.5 | 1.0E-104 | A1768797.1 | EST_HUMAN | w03b12.x1 NCI_CGAP_K012 Homo sapiens cDNA clone IMAGE:2401727 3' similar to TR:Q14145 Q14145 |
| 6786 | 19941 | 33339 | 0.74 | 1.0E-104 | BE314182.1 | EST_HUMAN | KIAA0132 PROTEIN, contains element LTR7 repetitive element; |
| 6942 | 20255 | 33692 | 3.39 | 1.0E-104 | BE314182.1 | EST_HUMAN | w03b12.x1 NCI_CGAP_K012 Homo sapiens cDNA clone IMAGE:3503220 5' |
| 6942 | 20255 | 33693 | 3.39 | 1.0E-104 | BE314182.1 | EST_HUMAN | KIAA0132 PROTEIN, contains element LTR7 repetitive element; |
| 7373 | 20452 | 33917 | 2.01 | 1.0E-104 | 11426572 | NT | Homo sapiens PDZ domain-containing guanine nucleotide exchange factor 1 (LOC51735), mRNA |
| 7896 | 21875 | 35414 | 0.87 | 1.0E-104 | BF509244.1 | EST_HUMAN | 901150451F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3503220 5' |
| 8368 | 22443 | 36004 | 2.41 | 1.0E-104 | BF448230.1 | EST_HUMAN | 901150451F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3503220 5' |
| 8463 | 22620 | 36092 | 0.46 | 1.0E-104 | AA682308.1 | EST_HUMAN | Homo sapiens alectin-related protein complex 2, beta 1 subunit (AP2B1), mRNA |
| 9484 | 22541 | | 1.03 | 1.0E-104 | T74219.1 | EST_HUMAN | U1H-B14-aww-b-09-Q-U1.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3088176 3' |
| 9515 | 22580 | 36146 | 5 | 1.0E-104 | AF091395.1 | NT | ncf18g11.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3365948 3' |
| 9515 | 22580 | 36147 | 5 | 1.0E-104 | AF091395.1 | NT | 288006.01 Soares fetal_liver spleen_1NPLS_S1 Homo sapiens cDNA clone IMAGE:462897 3' |
| 9515 | 22580 | 36147 | 5 | 1.0E-104 | AF091395.1 | NT | ye83f02.r1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:22440 5' |
| 9515 | 22580 | 36147 | 5 | 1.0E-104 | AF091395.1 | NT | Homo sapiens Trio isoform mRNA, complete cds |
| 9515 | 22580 | 36147 | 5 | 1.0E-104 | AF091395.1 | NT | Homo sapiens Trio isoform mRNA, complete cds |

Page 443 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 9841 | 21084 | 34597 | 4.14 | 1.0E-104 | BF352841.1 | EST_HUMAN | IL3-HT0819-080900-249-F07 HT0819 Homo sapiens cDNA |
| 9841 | 21084 | 34598 | 4.14 | 1.0E-104 | BF352841.1 | EST_HUMAN | IL3-HT0819-080900-249-F07 HT0819 Homo sapiens cDNA |
| 9866 | 22894 | 36589 | 0.82 | 1.0E-104 | AW103848.1 | EST_HUMAN | Q24116 HYPOTHETICAL 28.4 KD PROTEIN ; xd78d02.x1 Scores_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2603523 3' similar to TR:Q24116 |
| 9955 | 22894 | 36590 | 0.92 | 1.0E-104 | AW103848.1 | EST_HUMAN | Q24116 HYPOTHETICAL 28.4 KD PROTEIN ; xd78d02.x1 Scores_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2603523 3' similar to TR:Q24116 |
| 10163 | 23180 | 36787 | 0.49 | 1.0E-104 | AF113614.1 | NT | Homo sapiens histone acetyltransferase MORF mRNA, complete cds |
| 10298 | 23333 | 36837 | 3.16 | 1.0E-104 | BE791713.1 | EST_HUMAN | 601581503F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3935977 5' |
| 10298 | 23333 | 36838 | 3.16 | 1.0E-104 | BE791713.1 | EST_HUMAN | 601581503F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3935977 5' |
| 10611 | 23846 | 37253 | 1.49 | 1.0E-104 | AV728070.1 | EST_HUMAN | AV728070 HTC Homo sapiens cDNA clone HTCBYAO7 5' |
| 10657 | 23891 | 37301 | 4.47 | 1.0E-104 | AU130785.1 | EST_HUMAN | ALH130785 HT2RP3 Homo sapiens cDNA clone NT2P3001398 5' |
| 10757 | 23790 | 37407 | 0.54 | 1.0E-104 | AA931321.1 | EST_HUMAN | coo6a10.s1 Scores_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1565370 3' |
| 10757 | 23790 | 37408 | 0.54 | 1.0E-104 | AA931321.1 | EST_HUMAN | coo6a10.s1 Scores_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1565370 3' |
| 10774 | 23907 | 37430 | 5.4 | 1.0E-104 | U66535.1 | NT | Human beta4-integrin (ITGB4) gene, exons 19,20,21,22,23,24 and 25 |
| 10781 | 23824 | 38310 | 0.74 | 1.0E-104 | 11427767 | NT | Homo sapiens KIAA0649 gene product (KIAA0649), mRNA |
| 11577 | 24632 | 38310 | 44.86 | 1.0E-104 | BE720191.1 | EST_HUMAN | RC0-HT0885-310700-021-b09 HT0885 Homo sapiens cDNA |
| 11577 | 24632 | 38311 | 44.86 | 1.0E-104 | BE720191.1 | EST_HUMAN | RC0-HT0885-310700-021-b09 HT0885 Homo sapiens cDNA |
| 11611 | 24663 | 38350 | 4.1 | 1.0E-104 | BF684288.1 | EST_HUMAN | 602141215F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4302607 5' |
| 12082 | 25062 | 38768 | 48.12 | 1.0E-104 | 11434729 | NT | Homo sapiens ribosomal protein S6 kinase, 90kD, polypeptide 5 (RPS6KA5), mRNA |
| 13073 | 25702 | | 1.32 | 1.0E-104 | BE398892.1 | EST_HUMAN | 601312181F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3658078 5' |
| 289 | 15931 | 26541 | 2.87 | 1.0E-105 | 4502168 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 438 | 13238 | 26238 | 6.69 | 1.0E-105 | 4505190 | NT | Homo sapiens Meis1 (mouse) homolog (MEIS1) mRNA |
| 607 | 13798 | 26815 | 2.51 | 1.0E-105 | AF032897.1 | NT | Homo sapiens potassium channel subunit (HERG-3) mRNA, complete cds |
| 607 | 13798 | 26816 | 2.51 | 1.0E-105 | AF032897.1 | NT | Homo sapiens potassium channel subunit (HERG-3) mRNA, complete cds |
| 1885 | 15011 | 28118 | 10.24 | 1.0E-105 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 1979 | 15122 | 28223 | 2.39 | 1.0E-105 | D50818.1 | NT | Human mRNA for KIAA0128 gene, partial cds |
| 2263 | 15396 | 28524 | 3.06 | 1.0E-105 | AA318369.1 | EST_HUMAN | EST20608 Spleen 1 Homo sapiens cDNA 5' end similar to autoimmune antigen Ku, p70/p80 subunit |
| 2298 | 15329 | | 1.18 | 1.0E-105 | BE891766.1 | EST_HUMAN | 601434491F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918611 5' |
| 2784 | 15000 | | 0.98 | 1.0E-105 | AA684808.1 | EST_HUMAN | no10d05.s1 NCJ CGAP_Phet Homo sapiens cDNA clone IMAGE:1100265 3' |
| 3071 | 16247 | | 2.79 | 1.0E-105 | AJ229041.1 | NT | Homo sapiens 659 kb contig between AML1 and CBR1 on chromosome 21q22: segment 1/3 |
| 3432 | 16500 | 28818 | 0.86 | 1.0E-105 | 7304922 | NT | Homo sapiens bromodomain adjacent to zinc finger domain, 2B (BAZ2B), mRNA |
| 3432 | 16500 | 28819 | 0.86 | 1.0E-105 | 7304922 | NT | Homo sapiens bromodomain adjacent to zinc finger domain, 2B (BAZ2B), mRNA |
| 4213 | 17362 | 30350 | 2.23 | 1.0E-105 | AW961698.1 | EST_HUMAN | EST1373761 IMAGE: resequences, MAGG Homo sapiens cDNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 5053 | 18181 | | 5.34 | 1.0E-105 | AL163208.2 | NT | Homo sapiens chromosome 21 segment HS21G008 |
| 5259 | 18378 | 31344 | 1.08 | 1.0E-105 | AB020873.1 | NT | Homo sapiens mRNA for KIAA0868 protein, complete cds |
| 5445 | 18645 | 31623 | 1.18 | 1.0E-105 | AF016704.1 | NT | Homo sapiens E6-AP ubiquitin-protein ligase (UBE3A) gene, exon 2 |
| 5613 | 18711 | | 1.12 | 1.0E-105 | 11420134 | NT | Homo sapiens Retina-derived POU-domain factor-1 (RPF-1), mRNA |
| 7045 | 20098 | 33513 | 1.44 | 1.0E-105 | BF314302.1 | EST_HUMAN | 601901028F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4130334 5' |
| 7045 | 20098 | 33514 | 1.44 | 1.0E-105 | BF314302.1 | EST_HUMAN | 801901028F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4130334 5' |
| 7121 | 18547 | 31458 | 3.78 | 1.0E-105 | 11419188 | NT | Homo sapiens GTPase activating protein-like (GAPL), mRNA |
| 7121 | 18547 | 31459 | 3.78 | 1.0E-105 | 11419188 | NT | Homo sapiens GTPase activating protein-like (GAPL), mRNA |
| 7167 | 20300 | 33743 | 0.72 | 1.0E-105 | AW651634.1 | EST_HUMAN | EST3363689 IMAGE resequences, MAGB Homo sapiens cDNA |
| 7436 | 20513 | 33988 | 0.72 | 1.0E-105 | BE902618.1 | EST_HUMAN | 601877279F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3860019 5' |
| 8043 | 21126 | 34847 | 0.93 | 1.0E-105 | X12556.1 | NT | Human mRNA for dhl proto-oncogene |
| 8217 | 21259 | 34820 | 11.05 | 1.0E-105 | T05087.1 | EST_HUMAN | EST02975 Fetal brain, Striatum (cat#938208) Homo sapiens cDNA clone HFBOR32 |
| 8592 | 21673 | 35211 | 1.83 | 1.0E-105 | AW007194.1 | EST_HUMAN | ws50c10.x1 NCL_CGAP_Bim25 Homo sapiens cDNA clone IMAGE:2500828 3' similar to SW:ACSA_PENCH P36333 ACETYL-COENZYME A SYNTHETASE |
| 9128 | 22207 | 35750 | 0.82 | 1.0E-105 | AW340817.1 | EST_HUMAN | RC1-CN0008-070100-011-005 CN0008 Homo sapiens cDNA |
| 9250 | 22327 | 35874 | 2.51 | 1.0E-105 | AW018879.1 | EST_HUMAN | UI-H-B10p-abb-b-12-Q-U1at NCL_CGAP_Sub2 Homo sapiens cDNA clone IMAGE:2711782 3' |
| 9404 | 22478 | 36041 | 0.83 | 1.0E-105 | AW882372.1 | EST_HUMAN | QV2-OT0082-140300-083-009 OT0082 Homo sapiens cDNA |
| 9404 | 22478 | 36042 | 0.83 | 1.0E-105 | AW882372.1 | EST_HUMAN | QV2-OT0082-140300-083-009 OT0082 Homo sapiens cDNA |
| 9767 | 22764 | 36333 | 0.75 | 1.0E-105 | BE887793.1 | EST_HUMAN | 601443755F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3847884 5' |
| 9767 | 22764 | 36334 | 0.75 | 1.0E-105 | BE887793.1 | EST_HUMAN | 601443755F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3847884 5' |
| 11173 | 24243 | 37876 | 4.82 | 1.0E-105 | AF284822.1 | NT | Homo sapiens SMARCA4 isoform (SMARCA4) gene, complete cds, alternatively spliced |
| 11506 | 24564 | 38241 | 1.42 | 1.0E-105 | D63548.1 | NT | Homo sapiens COL4A6 gene for a6(V) collagen, exon 31 |
| 11559 | 24614 | 38293 | 1.85 | 1.0E-105 | 7705936 | NT | Homo sapiens Ran binding protein 11 (LOC51194), mRNA |
| 11887 | 24875 | 38572 | 2.52 | 1.0E-105 | AW027554.1 | EST_HUMAN | ww7407.x1 Soares thymus_NHIFth Homo sapiens cDNA clone IMAGE:2535301 3' similar to TR:P87892 |
| 11887 | 24875 | 38572 | 2.52 | 1.0E-105 | AW027554.1 | EST_HUMAN | P87892 PROTEASE |
| 11872 | 24857 | 38659 | 1.48 | 1.0E-105 | BF430921.1 | EST_HUMAN | 7018c10.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3574281 3' similar to TR:P97680 P97680 |
| 12111 | 25091 | 38794 | 1.3 | 1.0E-105 | AF218890.1 | NT | RIN1 |
| 155 | 13380 | 26494 | 0.88 | 1.0E-106 | AW503208.1 | EST_HUMAN | Homo sapiens attractin precursor (ATRN) gene, exon 8 |
| 210 | 13433 | 26494 | 5.14 | 1.0E-106 | AI550085.1 | EST_HUMAN | UI-HF-BND-akt-g-07-Q-U1at NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3076348 5' |
| 555 | 13748 | 26774 | 1.89 | 1.0E-106 | AW965356.1 | EST_HUMAN | 6018c01.x1 NCL_CGAP_U11 Homo sapiens cDNA clone IMAGE:2216008 3' |
| 620 | 13807 | 26828 | 0.8 | 1.0E-106 | J00148.1 | NT | EST377629 IMAGE resequences, MAGI Homo sapiens cDNA |
| 621 | 13807 | 26828 | 1.13 | 1.0E-106 | J00148.1 | NT | Human dihydrofolate reductase pseudogene (psl-hd1) |
| 1554 | 14707 | 27787 | 8.84 | 1.0E-106 | AF145712.1 | NT | Human dihydrofolate reductase pseudogene (psl-hd1) |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 1736 | 14885 | 27978 | 7.83 | 1.0E-106 | U48724.1 | NT | Human epidermal growth factor receptor (EGFR) precursor-mRNA, exon 4, partial cds |
| 1757 | 14806 | 28000 | 1.33 | 1.0E-106 | U04510.1 | NT | Homo sapiens type IV collagen alpha 5 chain (COL4A5) gene, exon 41 |
| 1846 | 14892 | 28093 | 5.51 | 1.0E-106 | AA527446.1 | EST_HUMAN | ng41c05.s1 NCI_CGAP_C63 Homo sapiens cDNA clone IMAGE:937382 3' similar to contains element |
| 1846 | 14892 | 28094 | 5.51 | 1.0E-106 | AA527446.1 | EST_HUMAN | LTR3 repetitive element; |
| 2191 | 15326 | 28461 | 1.94 | 1.0E-106 | BE144286.1 | EST_HUMAN | ng41c05.s1 NCI_CGAP_C63 Homo sapiens cDNA clone IMAGE:937382 3' similar to contains element |
| 2391 | 15522 | 28651 | 3.62 | 1.0E-106 | 4504184 | NT | LTR3 repetitive element; |
| 2574 | 15899 | 28821 | 2.19 | 1.0E-106 | AF003528.1 | NT | ng41c05.s1 NCI_CGAP_C63 Homo sapiens cDNA clone IMAGE:937382 3' similar to contains element |
| 2687 | 15788 | 28904 | 1.93 | 1.0E-106 | U04675.2 | NT | LTR3 repetitive element; |
| 2688 | 15780 | 28906 | 2.01 | 1.0E-106 | BE26020.1 | EST_HUMAN | MR0-HT0165-140200-008-d10 HT0165 Homo sapiens cDNA |
| 2815 | 15928 | 28041 | 8.05 | 1.0E-106 | AJ278526.1 | EST_HUMAN | Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA |
| 2886 | 14617 | 27700 | 1.84 | 1.0E-106 | 4504184 | NT | Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA |
| 2886 | 14617 | 27701 | 1.84 | 1.0E-106 | 4504184 | NT | Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA |
| 2839 | 16116 | 29128 | 1.18 | 1.0E-106 | BE384296.1 | EST_HUMAN | Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA |
| 3007 | 16182 | 29204 | 5.7 | 1.0E-106 | AB037747.1 | NT | Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA |
| 3007 | 16182 | 29205 | 5.7 | 1.0E-106 | AB037747.1 | NT | Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA |
| 3248 | 16422 | 29438 | 2.5 | 1.0E-106 | 8922965 | NT | Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA |
| 3248 | 16422 | 29439 | 2.5 | 1.0E-106 | 8922965 | NT | Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA |
| 3461 | 16528 | 29848 | 1.04 | 1.0E-106 | AB008681.1 | NT | Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA |
| 3527 | 16892 | 29701 | 1.07 | 1.0E-106 | AB033104.1 | NT | Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA |
| 3527 | 16892 | 29702 | 1.07 | 1.0E-106 | AB033104.1 | NT | Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA |
| 4149 | 17301 | 30293 | 9.2 | 1.0E-106 | AW974680.1 | EST_HUMAN | Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA |
| 4149 | 17301 | 30294 | 9.2 | 1.0E-106 | AW974680.1 | EST_HUMAN | Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA |
| 4723 | 17858 | 30840 | 2.27 | 1.0E-106 | BE144286.1 | EST_HUMAN | Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA |
| 5485 | 18684 | 31701 | 2.95 | 1.0E-106 | AA781155.1 | EST_HUMAN | Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA |
| 5978 | 19161 | 32480 | 0.95 | 1.0E-106 | AU130113.1 | EST_HUMAN | Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA |
| 5978 | 19161 | 32481 | 0.95 | 1.0E-106 | AU130113.1 | EST_HUMAN | Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA |
| 6026 | 19209 | 32529 | 0.61 | 1.0E-106 | AA434168.1 | EST_HUMAN | Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA |
| 6116 | 19296 | 32631 | 1 | 1.0E-106 | AU143428.1 | EST_HUMAN | Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA |
| 6116 | 19296 | 32632 | 1 | 1.0E-106 | AU143428.1 | EST_HUMAN | Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA |
| 6227 | 19402 | 32762 | 8.39 | 1.0E-106 | BF679674.1 | EST_HUMAN | Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6336 | 19507 | 32864 | 0.81 | 1.0E-106 | BE897112.1 | EST_HUMAN | 601439870F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3924641 5' |
| 6528 | 19507 | 32864 | 0.86 | 1.0E-106 | BE897112.1 | EST_HUMAN | 601439870F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3924641 5' |
| 6649 | 19711 | 33087 | 15.91 | 1.0E-106 | 11545913 | NT | Homo sapiens xylosyltransferase II (XT2), mRNA |
| 6549 | 19711 | 33088 | 15.91 | 1.0E-106 | 11545913 | NT | Homo sapiens xylosyltransferase II (XT2), mRNA |
| 7628 | 20601 | 34075 | 5.89 | 1.0E-106 | AA683778.1 | EST_HUMAN | aa72a07.s1 Stratiotes schizobrain S11 Homo sapiens cDNA clone IMAGE:968732 3' similar to gb:X65873 |
| 7682 | 20654 | 34130 | 4.17 | 1.0E-106 | 11428617 | NT | KINESIN HEAVY CHAIN (HUMAN); |
| 7672 | 20738 | 34216 | 1.84 | 1.0E-106 | BE292722.1 | EST_HUMAN | Homo sapiens XPMC2 protein (LOC57109), mRNA |
| 7767 | 20843 | 34335 | 8.06 | 1.0E-106 | 11425503 | NT | 601108739F1 NIH_MGC_75 Homo sapiens cDNA clone IMAGE:2988345 5' |
| 7787 | 20843 | 34336 | 8.06 | 1.0E-106 | 11425503 | NT | Homo sapiens sorting nexin 11 (SNX11), mRNA |
| 7894 | 21044 | 34556 | 0.6 | 1.0E-106 | AL116850.1 | EST_HUMAN | Homo sapiens sorting nexin 11 (SNX11), mRNA |
| 8173 | 21255 | 34776 | 3.62 | 1.0E-106 | BE741408.1 | EST_HUMAN | AU118850 HEMBA1 Homo sapiens cDNA clone HEMBA1000129 5' |
| 8173 | 21255 | 34777 | 3.62 | 1.0E-106 | BE741408.1 | EST_HUMAN | 601594331F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3948463 5' |
| 8368 | 21449 | 34972 | 2.21 | 1.0E-106 | A1523066.1 | EST_HUMAN | 601594331F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3948463 5' |
| 8830 | 21909 | 35447 | 0.84 | 1.0E-106 | BE387950.1 | EST_HUMAN | ar68a07.x1 Barstead scita HPLRB6 Homo sapiens cDNA clone IMAGE:2127732 3' similar to gb:X06233 |
| 8830 | 21909 | 35448 | 0.84 | 1.0E-106 | BE387950.1 | EST_HUMAN | CALGRANULIN B (HUMAN); |
| 8803 | 21882 | 35522 | 2.77 | 1.0E-106 | A1654123.1 | EST_HUMAN | 601282717F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3604493 5' |
| 8252 | 22329 | 35876 | 0.83 | 1.0E-106 | AW836831.1 | EST_HUMAN | 601282717F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3604493 5' |
| 8348 | 22424 | 35976 | 2.34 | 1.0E-106 | AA825307.1 | EST_HUMAN | Q05084 69 KD ISLET CELL AUTOANTIGEN; |
| 8348 | 22424 | 35979 | 2.34 | 1.0E-106 | AA825307.1 | EST_HUMAN | CMA-LT0069-160200-098-008 L10069 Homo sapiens cDNA |
| 9486 | 22543 | 36106 | 0.77 | 1.0E-106 | A1750447.1 | EST_HUMAN | cc87e08.s1 NCL CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1354780 3' |
| 8828 | 22684 | 36255 | 1.94 | 1.0E-106 | A1479569.1 | EST_HUMAN | cc67e08.s1 NCL CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1354780 3' |
| 8828 | 22684 | 36256 | 1.94 | 1.0E-106 | A1479569.1 | EST_HUMAN | cn03a04.y1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBC_cn03e04 random |
| 10205 | 23241 | 36832 | 0.6 | 1.0E-106 | BE389234.1 | EST_HUMAN | lm41f02.x1 NCL CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2160699 3' similar to contains MSR1.13 |
| 10289 | 23324 | 36926 | 1.09 | 1.0E-106 | BF027310.1 | EST_HUMAN | TAR1 PTR5 repetitive element; |
| 10289 | 23324 | 36927 | 1.09 | 1.0E-106 | BF027310.1 | EST_HUMAN | lm41f02.x1 NCL CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2160699 3' similar to contains MSR1.13 |
| 10446 | 23481 | 37086 | 10.7 | 1.0E-106 | AA604417.1 | EST_HUMAN | TAR1 PTR5 repetitive element; |
| 10446 | 23481 | 37086 | 10.7 | 1.0E-106 | AA604417.1 | EST_HUMAN | TAR1 PTR5 repetitive element; |
| 10482 | 23627 | 37136 | 1.83 | 1.0E-106 | AW363289.1 | EST_HUMAN | 801282367F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3604217 5' |

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 10497 | 23532 | 37141 | 0.66 | 1.0E-108 | 11436432 | NT | Homo sapiens multimierin (MMRN), mRNA |
| 10497 | 23532 | 37142 | 0.66 | 1.0E-108 | 11436432 | NT | Homo sapiens multimierin (MMRN), mRNA |
| 10678 | 23712 | 37320 | 0.65 | 1.0E-108 | AL038886.1 | EST_HUMAN | DKFZp434F0712.1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434F0712.6 |
| 10807 | 23840 | 37484 | 4.26 | 1.0E-108 | AL183202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 11135 | 24207 | 37832 | 4.81 | 1.0E-108 | BF032755.1 | EST_HUMAN | 601453461F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3857368.5 |
| 11136 | 24207 | 37833 | 4.81 | 1.0E-108 | BF032755.1 | EST_HUMAN | 601453461F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3857368.5 |
| 11317 | 24380 | 38025 | 2.06 | 1.0E-108 | J05200.1 | NT | Human ryanodine receptor mRNA, complete cds |
| 11317 | 24380 | 38026 | 2.06 | 1.0E-108 | J05200.1 | NT | Human ryanodine receptor mRNA, complete cds |
| 11694 | 24692 | 38383 | 1.35 | 1.0E-108 | BE267385.1 | EST_HUMAN | 601109219F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3349997.6 |
| 11837 | 24826 | 38514 | 1.89 | 1.0E-108 | BE010882.1 | EST_HUMAN | RC5-BN0192-100500-021-B02 BN0192 Homo sapiens cDNA |
| 11837 | 24826 | 38515 | 1.89 | 1.0E-108 | BE010882.1 | EST_HUMAN | RC5-BN0192-100500-021-B02 BN0192 Homo sapiens cDNA |
| 12253 | 25946 | | 4.3 | 1.0E-108 | AW410405.1 | EST_HUMAN | 1405111.x1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2981844.5 |
| 12484 | 25336 | 32059 | 1.97 | 1.0E-106 | BE944483.1 | EST_HUMAN | 601433087F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918524.5 |
| 12484 | 25336 | 32060 | 1.97 | 1.0E-106 | BE944483.1 | EST_HUMAN | 601433087F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918524.5 |
| 12717 | 25477 | | 3.71 | 1.0E-108 | BE695903.1 | EST_HUMAN | RC1-CT0249-080800-024-c05 CT0249 Homo sapiens cDNA |
| 244 | 13466 | | 4.52 | 1.0E-107 | AJ271735.1 | NT | Homo sapiens Xq pseudautosomal region; segment 1/2 |
| 275 | 13493 | | 0.9 | 1.0E-107 | X60459.1 | NT | Human IFNAR gene for Interferon alpha/beta receptor |
| 637 | 13922 | | 1.03 | 1.0E-107 | 4828863 | NT | Homo sapiens neuronal cell adhesion molecule (NRCAM) mRNA |
| 647 | 13832 | 26858 | 2.34 | 1.0E-107 | AF165103.1 | NT | Homo sapiens NY-REN-25 antigen mRNA, partial cds |
| 836 | 14014 | 27069 | 1.02 | 1.0E-107 | X60459.1 | NT | Human IFNAR gene for Interferon alpha/beta receptor |
| 909 | 14084 | 27149 | 1.38 | 1.0E-107 | X60459.1 | NT | Human IFNAR gene for Interferon alpha/beta receptor |
| 991 | 14163 | 27223 | 9.71 | 1.0E-107 | AF154121.1 | NT | Homo sapiens sodium-dependent high-affinity dicarboxylate transporter (NADC3) mRNA, complete cds |
| 1307 | 14463 | 27631 | 1.06 | 1.0E-107 | AB032253.1 | NT | Homo sapiens BAZ1B mRNA for bromodomain adjacent to zinc finger domain 1B, complete cds |
| 1600 | 14783 | 27836 | 3.81 | 1.0E-107 | BF087405.1 | EST_HUMAN | QV2-HT0540-120800-368-a05 HT0540 Homo sapiens cDNA |
| 1791 | 14940 | 28033 | 6.42 | 1.0E-107 | AF138275.1 | NT | Homo sapiens cathepsin Z precursor (CTSZ) gene, exon 3 |
| 1887 | 16031 | 28136 | 1.52 | 1.0E-107 | AB007822.2 | NT | Homo sapiens mRNA for KIAA0453 protein, partial cds |
| 1887 | 16031 | 28139 | 1.52 | 1.0E-107 | AB007822.2 | NT | Homo sapiens mRNA for KIAA0453 protein, partial cds |
| 1987 | 16031 | 28139 | 1.52 | 1.0E-107 | AB007822.2 | NT | Homo sapiens mRNA for KIAA0453 protein, partial cds |
| 2282 | 16414 | 28546 | 3.77 | 1.0E-107 | U13728.1 | NT | Human dipeptidyl peptidase IV (CD26) gene, exon 20 |
| 2435 | 16563 | 28691 | 4.03 | 1.0E-107 | AW842451.1 | EST_HUMAN | PM1-CN0031-190100-001-403 CN0031 Homo sapiens cDNA |
| 2435 | 16563 | 28692 | 4.03 | 1.0E-107 | AW842451.1 | EST_HUMAN | PM1-CN0031-190100-001-403 CN0031 Homo sapiens cDNA |
| 3072 | 18248 | 29268 | 8.14 | 1.0E-107 | AW842451.1 | EST_HUMAN | PM1-CN0031-190100-001-403 CN0031 Homo sapiens cDNA |
| 3072 | 18248 | 29269 | 8.14 | 1.0E-107 | AW842451.1 | EST_HUMAN | PM1-CN0031-190100-001-403 CN0031 Homo sapiens cDNA |
| 3169 | 18344 | 29352 | 2.6 | 1.0E-107 | 5902087 | NT | Homo sapiens SMT3 (suppressor of mit two 3, yeast) homolog 2 (SMT3H2), mRNA |

Page 448 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 3831 | 17080 | 30087 | 4.89 | 1.0E-107 | AF020871.1 | NT | Homo sapiens myotubularin (MTMR1) gene, exon 8 |
| 5742 | 18935 | 32235 | 0.64 | 1.0E-107 | AW968038.1 | EST_HUMAN | EST381115 IMAGE resequences, MAGK Homo sapiens cDNA |
| 5986 | 19171 | 32493 | 2.71 | 1.0E-107 | BE887469.1 | EST_HUMAN | 601442558F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3840494 5' |
| 7620 | 20593 | 34067 | 1.33 | 1.0E-107 | AW603913.1 | EST_HUMAN | U1-HF-BND-alf-c-08-0-JL1.1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078310 5' |
| 7520 | 20593 | 34068 | 1.33 | 1.0E-107 | AW603913.1 | EST_HUMAN | U1-HF-BND-alf-c-08-0-JL1.1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078310 5' |
| 7698 | 20763 | 34247 | 1.36 | 1.0E-107 | A1765078.1 | EST_HUMAN | wh56h04.x1 NCI_CGAP_Kid1 Homo sapiens cDNA clone IMAGE:2384781 3' |
| 7909 | 20981 | 34487 | 0.59 | 1.0E-107 | AJ404468.1 | NT | Homo sapiens mRNA for dynein heavy chain (DNAH9 gene) |
| 7909 | 20981 | 34488 | 0.59 | 1.0E-107 | AJ404468.1 | NT | Homo sapiens mRNA for dynein heavy chain (DNAH9 gene) |
| 9387 | 22728 | 36289 | 0.98 | 1.0E-107 | AU122469.1 | EST_HUMAN | Homo sapiens cDNA clone IMAGE:224833 5' |
| 10889 | 23973 | 37604 | 1.92 | 1.0E-107 | BE168726.1 | EST_HUMAN | QV1-HIT0518-140300-107-c10 HT0518 Homo sapiens cDNA |
| 10944 | 24026 | 37662 | 2.96 | 1.0E-107 | AJ392850.1 | EST_HUMAN | ig10d06.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2108963 3' similar to SW:AACT_D10DI |
| 11189 | 24258 | 37894 | 1.58 | 1.0E-107 | L49141.1 | NT | POS095 ALPHA-ACTININ 3, NON MUSCULAR |
| 11202 | 24271 | 37807 | 2.3 | 1.0E-107 | BF668511.1 | EST_HUMAN | Homo sapiens neuroendocrine-specific protein (NSP) gene, exon 4 |
| 11603 | 24656 | 38341 | 3.91 | 1.0E-107 | BE540850.1 | EST_HUMAN | 602123963F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4281039 5' |
| 11676 | 23504 | 37628 | 4.29 | 1.0E-107 | | NT | 601066881F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3452829 5' |
| 11678 | 23904 | 37627 | 4.29 | 1.0E-107 | | NT | Homo sapiens HSPC049 protein (HSPC049), mRNA |
| | | | | | | NT | Homo sapiens HSPC049 protein (HSPC049), mRNA |
| | | | | | | NT | 2645e01.a1 Scores retina N2b4-HR Homo sapiens cDNA clone IMAGE:361944 3' similar to contains THR.b1 |
| 12322 | 28100 | | 7.14 | 1.0E-107 | AA001415.1 | EST_HUMAN | THR repetitive element; |
| 13211 | 25780 | 31920 | 1.24 | 1.0E-107 | BE798189.1 | EST_HUMAN | 601582852F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3937188 5' |
| 977 | 14160 | 27210 | 1.72 | 1.0E-108 | BE290042.1 | EST_HUMAN | 601177018F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3532348 5' |
| 1294 | 14450 | 27615 | 2.41 | 1.0E-108 | Y18000.1 | NT | Homo sapiens NF2 gene |
| 2140 | 15276 | 28398 | 1.02 | 1.0E-108 | BF028728.1 | EST_HUMAN | 601871914F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3954939 5' |
| 2407 | 15538 | 28665 | 12.11 | 1.0E-108 | A1886040.1 | EST_HUMAN | tt91e10.x1 NCI_CGAP_P128 Homo sapiens cDNA clone IMAGE:2248938 3' similar to gb:M14219 BONE |
| 2407 | 15538 | 28668 | 12.11 | 1.0E-108 | A1886040.1 | EST_HUMAN | PROTEOGLYCAN II PRECURSOR (HUMAN); |
| | | | | | | EST_HUMAN | tt91e10.x1 NCI_CGAP_P128 Homo sapiens cDNA clone IMAGE:2248938 3' similar to gb:M14219 BONE |
| | | | | | | EST_HUMAN | PROTEOGLYCAN II PRECURSOR (HUMAN); |
| 2499 | 15626 | 28746 | 11.96 | 1.0E-108 | BE206694.1 | EST_HUMAN | bb25b10.x1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:2969899 3' similar to gb:X63777 80S |
| 3025 | 16201 | 29224 | 0.64 | 1.0E-108 | AF032897.1 | NT | RIBOSOMAL PROTEIN L23 (HUMAN); gb:J05277 Mouse hexokinase mRNA, complete cds (MOUSE); |
| 3430 | 16598 | 29614 | 0.64 | 1.0E-108 | AF032897.1 | NT | Homo sapiens Kruppel-like factor 8 (KLF8), mRNA |
| 3430 | 16598 | 29615 | 0.64 | 1.0E-108 | AF032897.1 | NT | Homo sapiens potassium channel subunit (HERG-3) mRNA, complete cds |
| | | | | | | NT | Homo sapiens potassium channel subunit (HERG-3) mRNA, complete cds |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 4273 | 17418 | 30408 | 1.57 | 1.0E-108 | AW694438.1 | EST_HUMAN | h12a11x1 NCL CGAP_GLI1 Homo sapiens cDNA clone IMAGE:2872060 3' similar to SW:3BP1_MOUSE |
| 4647 | 17783 | 30765 | 2.62 | 1.0E-108 | U72881.1 | NT | P55184 SH3-BINDING PROTEIN 3BP-1; |
| 4847 | 17783 | 30766 | 2.62 | 1.0E-108 | U72881.1 | NT | Human hepatocyte nuclear factor 4-alpha gene, exon 2 |
| 4927 | 18087 | 31040 | 3.37 | 1.0E-108 | 7681979 | NT | Human hepatocyte nuclear factor 4-alpha gene, exon 2 |
| 5037 | 18165 | 31141 | 0.63 | 1.0E-108 | AW504789.1 | EST_HUMAN | Homo sapiens KIAA0187 gene product (KIAA0187), mRNA |
| 5063 | 18181 | 31166 | 3.18 | 1.0E-108 | AJ008005.1 | NT | UJHF-BND-ah-e-04-Q-UJ1 NIH_MGC 60 Homo sapiens cDNA clone IMAGE:3080168 5' |
| 5596 | 18791 | 31839 | 1.24 | 1.0E-108 | AW384094.1 | EST_HUMAN | Homo sapiens PSN1 gene, alternative transcript |
| 5644 | 18838 | 31918 | 2.56 | 1.0E-108 | BE66016.1 | EST_HUMAN | RCO-HIT0372-241199-031-c03 HT0372 Homo sapiens cDNA |
| 5644 | 18838 | 31917 | 2.56 | 1.0E-108 | BE66016.1 | EST_HUMAN | 801444922F1 NIH_MGC 65 Homo sapiens cDNA clone IMAGE:3848980 5' |
| 6048 | 19232 | 32844 | 0.68 | 1.0E-108 | AF012823.1 | NT | 601444922F1 NIH_MGC 65 Homo sapiens cDNA clone IMAGE:3848980 5' |
| 6125 | 19304 | 32844 | 0.74 | 1.0E-108 | BF334851.1 | EST_HUMAN | Homo sapiens familial mental retardation protein 2 (FMR2) gene, exon 20 |
| 6267 | 19441 | 32789 | 6.14 | 1.0E-108 | AF264717.1 | NT | PM4-CT0403-240700-001-c10 CT0403 Homo sapiens cDNA |
| 6287 | 19441 | 32789 | 6.14 | 1.0E-108 | AF264717.1 | NT | PM4-CT0403-240700-001-c10 CT0403 Homo sapiens cDNA |
| 6392 | 19581 | 32921 | 1.22 | 1.0E-108 | AJ133289.1 | NT | Homo sapiens FYVE domain-containing dual specificity protein phosphatase FYVE-DSP2 mRNA, complete cds |
| 6489 | 19304 | 32844 | 1.09 | 1.0E-108 | BF334851.1 | EST_HUMAN | Homo sapiens FYVE domain-containing dual specificity protein phosphatase FYVE-DSP2 mRNA, complete cds |
| 6763 | 19809 | 33302 | 0.94 | 1.0E-108 | AF016708.1 | NT | Homo sapiens cavadin-1/-2 locus, Contig1, D7S622, genes CAV2 (exons 1, 2a, and 2b), CAV1 (exon 1 and 2) |
| 6753 | 19809 | 33303 | 0.94 | 1.0E-108 | AF016708.1 | NT | PM4-CT0403-240700-001-c10 CT0403 Homo sapiens cDNA |
| 7308 | 20390 | 33850 | 4.52 | 1.0E-108 | 11431857 | NT | Homo sapiens E8-AP ubiquitin-protein ligase (UBE3A) gene, exon 4 |
| 7597 | 20687 | 34143 | 2.12 | 1.0E-108 | 4768933 | NT | Homo sapiens E8-AP ubiquitin-protein ligase (UBE3A) gene, exon 4 |
| 7646 | 20716 | 34163 | 1.32 | 1.0E-108 | BE252607.1 | EST_HUMAN | Homo sapiens G protein-coupled receptor, family C, group 5, member B (GPCR5B), mRNA |
| 7674 | 20739 | 34218 | 0.73 | 1.0E-108 | BF528912.1 | EST_HUMAN | Homo sapiens delta-8 fatty acid desaturase (FADS6) mRNA |
| 7674 | 20739 | 34218 | 0.73 | 1.0E-108 | BF528912.1 | EST_HUMAN | 601113471F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:3354084 5' |
| 8254 | 21336 | 34910 | 1.72 | 1.0E-108 | AF083500.1 | NT | 602043384F1 NCI_CGAP_Bim67 Homo sapiens cDNA clone IMAGE:4181037 5' |
| 8306 | 21388 | 34911 | 0.61 | 1.0E-108 | AW408694.1 | EST_HUMAN | 602043384F1 NCI_CGAP_Bim67 Homo sapiens cDNA clone IMAGE:4181037 5' |
| 8306 | 21388 | 34911 | 0.61 | 1.0E-108 | AW408694.1 | EST_HUMAN | Homo sapiens connective tissue growth factor-like protein precursor, mRNA, complete cds |
| 9247 | 22324 | 35869 | 0.77 | 1.0E-108 | AF203977.1 | NT | UJHF-BMD-ads-e-12-Q-UJ1 NIH_MGC_38 Homo sapiens cDNA clone IMAGE:3082878 5' |
| 9287 | 22363 | 35912 | 0.46 | 1.0E-108 | N44974.1 | EST_HUMAN | UJHF-BMD-ads-e-12-Q-UJ1 NIH_MGC_38 Homo sapiens cDNA clone IMAGE:3082878 5' |
| 10847 | 23880 | 37500 | 1.08 | 1.0E-108 | 11428155 | NT | Homo sapiens ETS-family transcription factor EHF (EHF) mRNA, complete cds |
| | | | | | | | w35h10.1 Soares melanocyte 2NBHM Homo sapiens cDNA clone IMAGE:273283 5' similar to PIR-A45773 |
| | | | | | | | A45773 kelch protein, long form - fruit fly; |
| | | | | | | | Homo sapiens similar to high-mobility group (nonhistone chromosomal) protein 4 (H. sapiens) (LOC33446), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 10904 | 21037 | 34549 | 2.09 | 1.0E-108 | BE635227.1 | EST_HUMAN | 601058769F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3445361 5' |
| 11068 | 18601 | 31637 | 2.87 | 1.0E-108 | Y12490.1 | NT | Homo sapiens mRNA for Golgi-associated microtubule-binding protein (GMAP-210) |
| 11319 | 24382 | 38027 | 1.35 | 1.0E-108 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 11649 | 24603 | 38283 | 3.46 | 1.0E-108 | AW966185.1 | EST_HUMAN | EST378258 MAGE resequences, MAGI Homo sapiens cDNA |
| 11606 | 24658 | 38343 | 1.71 | 1.0E-108 | AV708790.1 | EST_HUMAN | AV708790 ADG Homo sapiens cDNA clone ADCAEE03 5' |
| 11605 | 24658 | 38344 | 1.71 | 1.0E-108 | AV708790.1 | EST_HUMAN | AV708790 ADG Homo sapiens cDNA clone ADCAEE03 5' |
| 11652 | 24731 | | 2.77 | 1.0E-108 | 11441465 | NT | Homo sapiens G protein-coupled receptor 48 (GPR48), mRNA |
| 11688 | 15538 | 28666 | 2.89 | 1.0E-108 | AI696040.1 | EST_HUMAN | 181610.X1 NCL_CGAP_P728 Homo sapiens cDNA clone IMAGE:2248938 3' similar to gb:M14219 BONE PROTEOGLYCAN II PRECURSOR (HUMAN); |
| 11688 | 15538 | 28666 | 2.89 | 1.0E-108 | AI696040.1 | EST_HUMAN | 181610.X1 NCL_CGAP_P728 Homo sapiens cDNA clone IMAGE:2248938 3' similar to gb:M14219 BONE PROTEOGLYCAN II PRECURSOR (HUMAN); |
| 11712 | 24752 | 38446 | 1.72 | 1.0E-108 | D83639.1 | NT | Homo sapiens COL4A6 gene for $\alpha 6$ (IV) collagen, exon 23 |
| 12499 | 26344 | 32064 | 4.15 | 1.0E-108 | AK024447.1 | NT | Homo sapiens mRNA for FLK0037 protein, partial cds |
| 12940 | 25618 | | 5.08 | 1.0E-108 | BF346356.1 | EST_HUMAN | 802018571F1 NCL_CGAP_Brn87 Homo sapiens cDNA clone IMAGE:4154287 5' |
| 43 | 13281 | 26287 | 1.01 | 1.0E-109 | AW803116.1 | EST_HUMAN | IL2-UM0077-280400-078-D08 UM0077 Homo sapiens cDNA |
| 68 | 13303 | 26329 | 1.17 | 1.0E-109 | D88974.1 | NT | Human mRNA for KIAA0220 gene, partial cds |
| 225 | 13447 | 26475 | 3.34 | 1.0E-109 | 11422486 | NT | Homo sapiens hypothetical protein FLJ11318 (FLJ11318), mRNA |
| 236 | 13456 | 26482 | 2.77 | 1.0E-109 | 11438391 | NT | Homo sapiens reticulocalbin 1, EF-hand calcium binding domain (RCN1), mRNA |
| 479 | 13674 | 26705 | 2.28 | 1.0E-109 | 4507712 | NT | Homo sapiens tetratricopeptide repeat domain 2 (TTG2), mRNA |
| 611 | 13800 | 26820 | 14.77 | 1.0E-109 | AB023216.1 | NT | Homo sapiens mRNA for KIAA0999 protein, partial cds |
| 611 | 13800 | 26821 | 14.77 | 1.0E-109 | AB023216.1 | NT | Homo sapiens mRNA for KIAA0999 protein, partial cds |
| 1037 | 14205 | 27262 | 1.62 | 1.0E-108 | AL163249.2 | NT | Homo sapiens chromosome 21 segment HS21C049 |
| 1229 | 14389 | 27451 | 8.5 | 1.0E-108 | M28699.1 | NT | Homo sapiens nucleolar phosphoprotein B23 (NPM1), mRNA, complete cds |
| 1230 | 14389 | 27451 | 6.38 | 1.0E-108 | M28699.1 | NT | Homo sapiens nucleolar phosphoprotein B23 (NPM1), mRNA, complete cds |
| 1573 | 14726 | 27806 | 0.89 | 1.0E-108 | BE283673.1 | EST_HUMAN | 601186922F2 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2869636 5' |
| 1673 | 14726 | 27807 | 0.89 | 1.0E-108 | BE283673.1 | EST_HUMAN | 601186922F2 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2869636 5' |
| 1823 | 15086 | 28170 | 2.3 | 1.0E-109 | D13843.2 | NT | Homo sapiens mRNA for KIAA0018 protein, partial cds |
| 2314 | 15446 | 28580 | 6.46 | 1.0E-109 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 2325 | 15457 | 28589 | 3.65 | 1.0E-109 | Y17123.1 | NT | Homo sapiens SNF3/INI1 gene, exon 6 |
| 2687 | 15807 | 28923 | 19.35 | 1.0E-109 | AI022328.1 | EST_HUMAN | ow95a01.X1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1654536 3' similar to TR:002197 002197 CIRCULATING CATHODIC ANTIGEN. ; |
| 2687 | 15807 | 28924 | 19.35 | 1.0E-109 | AI022328.1 | EST_HUMAN | ow95a01.X1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1654536 3' similar to TR:002197 002197 CIRCULATING CATHODIC ANTIGEN. ; |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 2688 | 15808 | 28925 | 2.68 | 1.0E-109 | 4504206 | NT | Homo sapiens guanylate cyclase activator 1A (retina) (GUCA1A) mRNA |
| 3126 | 16301 | 29314 | 3.37 | 1.0E-109 | N86190.1 | EST_HUMAN | J2816F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone J2816 5' similar to ZINC FINGER PROTEIN ZNF43 |
| 3475 | 16842 | 29661 | 2.08 | 1.0E-109 | AW883192.1 | EST_HUMAN | CM3-NN0009-190400-150-f10 NN0009 Homo sapiens cDNA |
| 3475 | 16842 | 29662 | 2.08 | 1.0E-109 | AW883192.1 | EST_HUMAN | CM3-NN0009-190400-150-f10 NN0009 Homo sapiens cDNA |
| 3806 | 16770 | 29785 | 1.1 | 1.0E-109 | AF240588.1 | NT | Homo sapiens retinol dehydrogenase homolog isoform-1 (RDH) mRNA, complete cds |
| 3946 | 17104 | | 1.31 | 1.0E-109 | BE146144.1 | EST_HUMAN | MRO-HT0209-110400-108-e04 HT0209 Homo sapiens cDNA |
| 4264 | 17409 | 30395 | 4.35 | 1.0E-109 | AI655417.1 | EST_HUMAN | ts89e06.x1 NCL CGAP_G08 Homo sapiens cDNA clone IMAGE:2239330 3' similar to WP:F63A2.8 |
| 4524 | 17663 | 30650 | 2.67 | 1.0E-109 | 4604206 | NT | Homo sapiens guanylate cyclase activator 1A (retina) (GUCA1A) mRNA |
| 4722 | 17657 | 30839 | 1.7 | 1.0E-109 | 7682083 | NT | Homo sapiens KIAA0377 gene product (KIAA0377), mRNA |
| 5165 | 18287 | 31252 | 0.72 | 1.0E-109 | BE283873.1 | EST_HUMAN | 601186922F2 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2959636 5' |
| 5165 | 18287 | 31253 | 0.72 | 1.0E-109 | BE283873.1 | EST_HUMAN | 601186922F2 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2959636 5' |
| 5361 | 18584 | 31480 | 0.67 | 1.0E-109 | AU137282.1 | EST_HUMAN | AU137282 PLACE1 Homo sapiens cDNA clone PLACE1006159 5' |
| 5374 | 18577 | 31445 | 0.82 | 1.0E-109 | BF673718.1 | EST_HUMAN | 602136446F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4272922 5' |
| 5428 | 18628 | 31604 | 2.62 | 1.0E-109 | 5174622 | NT | Homo sapiens placental protein 11 (serine proteinase) (P11), mRNA |
| 5724 | 18917 | | 1.23 | 1.0E-109 | BE179358.1 | EST_HUMAN | RC1-HT0815-200400-022-d04 HT0815 Homo sapiens cDNA |
| 6050 | 26817 | 32656 | 1.23 | 1.0E-109 | BF379688.1 | EST_HUMAN | CM1-U70038-060600-398-H07 U70038 Homo sapiens cDNA |
| 6119 | 18917 | | 1.41 | 1.0E-109 | BE179358.1 | EST_HUMAN | RC1-HT0815-200400-022-d04 HT0815 Homo sapiens cDNA |
| 6721 | 18878 | 33269 | 0.85 | 1.0E-109 | A1221385.1 | EST_HUMAN | qg86103.x1 Soares_NFL_I_GBC_S1 Homo sapiens cDNA clone IMAGE:1842111 3' |
| 6907 | 20222 | 33651 | 0.69 | 1.0E-109 | 11024711 | NT | Homo sapiens myosin, heavy polypeptide 4, skeletal muscle (MYH4), mRNA |
| 6907 | 20222 | 33652 | 0.69 | 1.0E-109 | 11024711 | NT | Homo sapiens myosin, heavy polypeptide 4, skeletal muscle (MYH4), mRNA |
| 7389 | 20467 | 33933 | 0.67 | 1.0E-109 | AB046811.1 | NT | Homo sapiens mRNA for KIAA1691 protein, partial cds |
| 7738 | 20789 | 34288 | 3.75 | 1.0E-109 | 11432574 | NT | Homo sapiens AT-binding transcription factor 1 (ATBF1), mRNA |
| 7740 | 20801 | 34280 | 4.91 | 1.0E-109 | BF182707.1 | EST_HUMAN | 601809495F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:4040279 5' |
| 7740 | 20801 | 34291 | 4.91 | 1.0E-109 | BF182707.1 | EST_HUMAN | 601809495F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:4040279 5' |
| 8366 | 21447 | 34970 | 1.35 | 1.0E-109 | AL049784.1 | NT | Novel human gene mapping to chromosome 13 |
| 8480 | 21581 | 35096 | 1.39 | 1.0E-109 | AA077493.1 | EST_HUMAN | PMO-BT0340-091289-002-e05 BT0340 Homo sapiens cDNA |
| 8857 | 21938 | | 2.84 | 1.0E-109 | AA077498.1 | EST_HUMAN | 7B18H01 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA clone 7B18H01 |
| 8932 | 22011 | 35549 | 4.36 | 1.0E-109 | BE787540.1 | EST_HUMAN | 601478417F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3882124 5' |
| 8932 | 22011 | 35550 | 4.36 | 1.0E-109 | BE787540.1 | EST_HUMAN | 601478417F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3882124 5' |
| 9177 | 22355 | 35797 | 0.57 | 1.0E-109 | BE145672.1 | EST_HUMAN | IL0-HT0205-071199-142-g01 HT0205 Homo sapiens cDNA |
| | | | | | | | y89g08.r1 Soares retina N2b5HR Homo sapiens cDNA clone IMAGE:222110 5' similar to SP:A53491 |
| 9439 | 22513 | 36077 | 1.65 | 1.0E-109 | H84860.1 | EST_HUMAN | A53491 BUMETANIDE-SENSITIVE NA-K-Cl COTRANSPORTER - SPINX; |

Table 4

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| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 9550 | 22615 | 36184 | 0.64 | 1.0E-109 | BE397088.1 | EST_HUMAN | 601289760F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3820030 5' |
| 9550 | 22615 | 36185 | 0.64 | 1.0E-109 | BE397088.1 | EST_HUMAN | 601289760F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3820030 5' |
| 9885 | 22734 | 36304 | 1.37 | 1.0E-109 | FO6804.1 | EST_HUMAN | HSC1EC121 normalized infant brain cDNA Homo sapiens cDNA clone e-10012 |
| 11013 | 24092 | 37730 | 1.8 | 1.0E-109 | BE540909.1 | EST_HUMAN | 601083030F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3449589 5' |
| 11013 | 24092 | 37731 | 1.8 | 1.0E-109 | BE540909.1 | EST_HUMAN | 601083030F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3449589 5' |
| 11048 | 24123 | 37757 | 19.68 | 1.0E-109 | BF694831.1 | EST_HUMAN | 602030724F2 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4245341 5' |
| 11387 | 24448 | 38109 | 1.57 | 1.0E-109 | AU121370.1 | EST_HUMAN | AU121370 HEMBB1 Homo sapiens cDNA clone HEMBB1002690 5' |
| 11651 | 24730 | 38422 | 2.18 | 1.0E-109 | 4502838 | NT | Homo sapiens Chediak-Higashi syndrome 1 (CHS1) mRNA |
| 11893 | 24891 | 38382 | 4.5 | 1.0E-109 | W16610.1 | EST_HUMAN | z008512.1 Soares fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:301439 5' similar to PIR:S43869 S4988 p64-beta stress-activated protein kinase - rat; |
| 11884 | 24872 | 38559 | 1.64 | 1.0E-109 | BE045560.1 | EST_HUMAN | h23105.x1 NCL_CGAP_LU24 Homo sapiens cDNA clone IMAGE:2855989 3' similar to TR:Q8Z124 Q8Z124 |
| 11948 | 24934 | 38638 | 1.5 | 1.0E-109 | AL119824.1 | EST_HUMAN | YGR163W MRNA HOMOLOGUE, COMPLETE cds.; |
| 11994 | 24959 | 38673 | 1.31 | 1.0E-109 | 11418618 | NT | DKFZp7611124.1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp7611124.1 |
| 12128 | 25108 | 38810 | 2.26 | 1.0E-109 | AB007892.1 | NT | Homo sapiens single-minded (Drosophila) homolog 1 (SIM1), mRNA |
| 12397 | 15457 | 28589 | 2.32 | 1.0E-109 | Y17123.1 | NT | Homo sapiens mRNA for KIAA0463 protein, partial cds |
| 12638 | 15457 | 28589 | 3.2 | 1.0E-109 | Y17123.1 | NT | Homo sapiens SNF5/INI1 gene, exon 6 |
| 12762 | 25308 | 32036 | 8.35 | 1.0E-109 | AB011369.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 3 | 13242 | 26242 | 1.4 | 1.0E-110 | 7549804 | NT | Homo sapiens deiodinase, deiodinase, type II (DIO2), transcript variant 2, mRNA |
| 38 | 13276 | 26281 | 3.96 | 1.0E-110 | 5803073 | NT | Homo sapiens leucine zipper-like transcriptional regulator, 1 (LZTR1), mRNA |
| 38 | 13276 | 26282 | 3.96 | 1.0E-110 | 5803073 | NT | Homo sapiens leucine zipper-like transcriptional regulator, 1 (LZTR1), mRNA |
| 112 | 13242 | 26242 | 1.83 | 1.0E-110 | 7549804 | NT | Homo sapiens deiodinase, deiodinase, type II (DIO2), transcript variant 2, mRNA |
| 305 | 13521 | 26555 | 1.31 | 1.0E-110 | D87291.1 | NT | Human mRNA for inward rectifier potassium channel, complete cds |
| 640 | 13733 | 28757 | 1.04 | 1.0E-110 | U84550.1 | NT | Human dystrobrexin (DTN) gene, exon 20 |
| 1267 | 14369 | 27429 | 0.89 | 1.0E-110 | 5031620 | NT | Homo sapiens calcitonin receptor-like (CALCRL) mRNA |
| 1308 | 14464 | 27532 | 1.02 | 1.0E-110 | AB032283.1 | NT | Homo sapiens BAZ1B mRNA for bromodomain adjacent to zinc finger domain 1B, complete cds |
| 1973 | 15116 | 28217 | 1.51 | 1.0E-110 | BE379477.1 | EST_HUMAN | 601237545F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3609883 5' |
| 2118 | 15256 | | 1.66 | 1.0E-110 | BF508898.1 | EST_HUMAN | U1H-B14-acc-b-05-Q-U1 s1 NCL_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3085784 3' |
| 2803 | 16081 | | 7.19 | 1.0E-110 | 4503098 | NT | Homo sapiens chondroitin sulfate proteoglycan 4 (melanoma-associated) (CSPG4), mRNA |
| 3156 | 16331 | | 1.48 | 1.0E-110 | U78027.1 | NT | Homo sapiens Brufen's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44L) and FTP3 (FTP3) genes, complete cds |
| 3264 | 16438 | 29457 | 2.66 | 1.0E-110 | 11436041 | NT | Homo sapiens pregnancy-zone protein (PZP), mRNA |
| 3264 | 16438 | 29458 | 2.66 | 1.0E-110 | 11436041 | NT | Homo sapiens pregnancy-zone protein (PZP), mRNA |
| 4320 | 17463 | 30449 | 1.09 | 1.0E-110 | M15918.1 | NT | Human autoimmune antigen small nuclear ribonucleoprotein E pseudogene |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 4758 | 17893 | 30872 | 2.04 | 1.0E-110 | AI017213.1 | EST_HUMAN | ol32b10.x1 Scores_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1627863 3' similar to SW:NI21_RAT P52591 NUCLEAR ENVELOPE PORE MEMBRANE PROTEIN POM 121 ; |
| 4777 | 17912 | 30897 | 3.01 | 1.0E-110 | AU117812.1 | EST_HUMAN | AU117812 HEMBA1 Homo sapiens cDNA clone HEMBA1002241 5' |
| 5088 | 18216 | | 2.28 | 1.0E-110 | 7892441 | NT | Homo sapiens KIAA1002 protein (KIAA1002), mRNA |
| 5409 | 18611 | 31583 | 2.23 | 1.0E-110 | BE299406.1 | EST_HUMAN | 601118710F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3028538 5' |
| 5843 | 19033 | 32339 | 0.78 | 1.0E-110 | BE621089.1 | EST_HUMAN | 601493677F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3896785 5' |
| 5860 | 19060 | 32358 | 8.61 | 1.0E-110 | 11419323 | NT | Homo sapiens hypothetical protein FLJ10300 (FLJ10300), mRNA |
| 5860 | 18050 | 32357 | 8.61 | 1.0E-110 | M55112.1 | NT | Homo sapiens hypothetical protein FLJ10300 (FLJ10300), mRNA |
| 6858 | 25835 | 33421 | 5.43 | 1.0E-110 | BE251496.1 | EST_HUMAN | Human cystic fibrosis transmembrane conductance regulator (CFTR) gene, exon 7 |
| 7178 | 20311 | 33764 | 0.59 | 1.0E-110 | BE251496.1 | EST_HUMAN | 601108388F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3350277 5' |
| 7251 | 20334 | 33782 | 0.85 | 1.0E-110 | U08888.1 | NT | Human GS2 gene, exon 2 |
| 7261 | 20334 | 33783 | 0.85 | 1.0E-110 | U08888.1 | NT | Human GS2 gene, exon 2 |
| 7477 | 20552 | 34025 | 0.78 | 1.0E-110 | AI590269.1 | EST_HUMAN | tr12408.x1 NCL CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2167407 3' similar to SW:ETV1_HUMAN |
| 7583 | 20655 | 34131 | 16.19 | 1.0E-110 | AV714276.1 | EST_HUMAN | P60549 ETS TRANSLLOCATION VARIANT 1 ; |
| 7583 | 20655 | 34132 | 16.19 | 1.0E-110 | AV714276.1 | EST_HUMAN | AV714276 DCB Homo sapiens cDNA clone DOBGG01 5' |
| 7613 | 20683 | 34159 | 2.87 | 1.0E-110 | AB020675.1 | NT | AV714276 DCB Homo sapiens cDNA clone DOBGG01 5' |
| 7743 | 20804 | 34263 | 0.86 | 1.0E-110 | AU137623.1 | EST_HUMAN | Homo sapiens mRNA for KIAA0868 protein, partial cds |
| 8536 | 22601 | 36174 | 1.09 | 1.0E-110 | BE302594.1 | EST_HUMAN | AU137623 PLACET1 Homo sapiens cDNA clone PLACE1007511 5' |
| 9777 | 22817 | 36395 | 2.46 | 1.0E-110 | AW603894.1 | EST_HUMAN | ba8801.y1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2905681 5' similar to TR:O77258 O77258 |
| 10529 | 23584 | 37171 | 3.38 | 1.0E-110 | 11432732 | NT | EG:114D9.2 PROTEIN ; |
| 10896 | 24065 | 37700 | 3.2 | 1.0E-110 | Y12337.1 | NT | QV2-L T0053-020400-119-e04 LT0053 Homo sapiens cDNA |
| 11209 | 24278 | 37816 | 3.64 | 1.0E-110 | BE734357.1 | EST_HUMAN | Homo sapiens galactokinase 2 (GALK2), mRNA |
| 11209 | 24278 | 37817 | 3.64 | 1.0E-110 | BE734357.1 | EST_HUMAN | H. sapiens mRNA for myotonic dystrophy protein kinase like protein |
| 11608 | 24661 | 38347 | 1.89 | 1.0E-110 | M10081.1 | NT | 601565604F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3840433 5' |
| 11728 | 23914 | 37539 | 1.7 | 1.0E-110 | AA446528.1 | EST_HUMAN | 601565604F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3840433 5' |
| 12311 | 25184 | | 2.47 | 1.0E-110 | BE897218.1 | EST_HUMAN | Human Insulin receptor mRNA, complete cds |
| 12341 | 25246 | | 2.88 | 1.0E-110 | AW062268.1 | EST_HUMAN | zw67g02.r1 Scores_testis_NHT Homo sapiens cDNA clone IMAGE:781288 5' similar to TR:G1145816 |
| 12594 | 25400 | | 2.99 | 1.0E-110 | AB011399.1 | NT | G1145816 FKBP54 ; |
| 12748 | 26113 | | 6.01 | 1.0E-110 | BF364546.1 | EST_HUMAN | 601439784F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3924548 5' |
| 13071 | 15256 | | 1.16 | 1.0E-110 | BF608988.1 | EST_HUMAN | ILD-BT0163-040899-094-g10 BT0163 Homo sapiens cDNA |
| 179 | 13402 | | 11.92 | 1.0E-111 | U43701.1 | NT | Homo sapiens gene for Af-6, complete cds |
| | | | | | | | PM3-NN1082-140900-008-f12 NN1082 Homo sapiens cDNA |
| | | | | | | | UI-H-B14-aos-b-05-Q-U1-1st NC1 CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3085784 3' |
| | | | | | | | Human ribosomal protein L23a mRNA, complete cds |

Page 454 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 201 | 13424 | 26455 | 1.64 | 1.0E-111 | 4758807 | NT | Homo sapiens ras GTPase activating protein-like (NGAP) mRNA |
| 753 | 13934 | | 1.99 | 1.0E-111 | BF035327.1 | EST_HUMAN | 601458631F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3862088 5' |
| 762 | 13943 | 28889 | 4.13 | 1.0E-111 | 8393092 | NT | Homo sapiens cat eye syndrome critical region gene 1 (CECR1), mRNA |
| 950 | 14123 | 27185 | 2.5 | 1.0E-111 | M26142.1 | NT | Human cardiac alpha-myosin heavy chain (MYH6) gene, exons 32 to 34 |
| 4286 | 17431 | 30419 | 1.15 | 1.0E-111 | 7561569 | NT | Homo sapiens DKFZP434D166 protein (DKFZP434D166), mRNA |
| 4449 | 17589 | 30570 | 4.59 | 1.0E-111 | K02268.1 | NT | Human enkephalin B (enkeB) gene, exon 4 and 3' flanking and complete cds |
| 5593 | 18788 | 31835 | 0.75 | 1.0E-111 | AA151017.1 | EST_HUMAN | z47b07.11 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:505048 5' similar to gb:M23575 PREGNANCY-SPECIFIC BETA-1 GLYCOPROTEIN C PRECURSOR (HUMAN); |
| 5693 | 18788 | 31836 | 0.75 | 1.0E-111 | AA151017.1 | EST_HUMAN | z47b07.11 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:505045 5' similar to gb:M23575 PREGNANCY-SPECIFIC BETA-1 GLYCOPROTEIN C PRECURSOR (HUMAN); |
| 6749 | 18941 | 32242 | 0.88 | 1.0E-111 | BE807809.1 | EST_HUMAN | 601443690F1 NIH_MGC_95 Homo sapiens cDNA clone IMAGE:3847655 5' |
| 5802 | 19052 | 32369 | 0.68 | 1.0E-111 | U18969.1 | NT | Human two-handed zinc finger protein ZEB mRNA, partial cds |
| 6156 | 19332 | 32678 | 2.09 | 1.0E-111 | A1344879.1 | EST_HUMAN | qp09g12.x1 NCI_CGAP_K145 Homo sapiens cDNA clone IMAGE:1817574 3' similar to gb:M28893 RAS-RELATED PROTEIN RAL-A (HUMAN); |
| 6818 | 19971 | 33379 | 0.99 | 1.0E-111 | AL040762.1 | EST_HUMAN | DKFZp434C1815.11 434 (synonym: hhes3) Homo sapiens cDNA clone DKFZp434C1815 5' |
| 6945 | 20258 | 33697 | 1.31 | 1.0E-111 | AW284648.1 | EST_HUMAN | UHH-BWD-all-4-03-0-U1.st NCI_CGAP_Sub6 Homo sapiens cDNA clone IMAGE:2728525 3' |
| 7605 | 20975 | 34149 | 3.04 | 1.0E-111 | BF369228.1 | EST_HUMAN | IL2-NT0101-280700-114-E03 NT0101 Homo sapiens cDNA |
| | | | | | | | wf68d01.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2398465 3' similar to gb:J04813 CYTOCHROME P450 IIIA5 (HUMAN); |
| 7704 | 20769 | 34254 | 0.7 | 1.0E-111 | A1761228.1 | EST_HUMAN | Homo sapiens basic transcription factor 2 p44 (btf2p44) gene, partial cds, neuronal apoptosis inhibitory protein (nrip) and survival motor neuron protein (smn) genes, complete cds |
| 7791 | 20847 | 34340 | 0.83 | 1.0E-111 | U80017.1 | NT | z578g03.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:703732 5' similar to TR:G1256410 |
| 8286 | 21368 | 34988 | 0.8 | 1.0E-111 | AA278888.1 | EST_HUMAN | G1256410 11-ZINC-FINGER TRANSCRIPTION FACTOR ; |
| 8286 | 21368 | 34989 | 0.8 | 1.0E-111 | AA278888.1 | EST_HUMAN | z578g03.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:703732 5' similar to TR:G1256410 |
| 8383 | 21494 | 34989 | 0.63 | 1.0E-111 | 11431896 | NT | G1256410 11-ZINC-FINGER TRANSCRIPTION FACTOR ; |
| 8435 | 21516 | 35047 | 3.56 | 1.0E-111 | U86633.1 | NT | Homo sapiens protein x 0001 (LOC51185), mRNA |
| 8878 | 21957 | 35492 | 0.98 | 1.0E-111 | 11420516 | NT | Homo sapiens nuclear factor of activated T-cells, cytoplasmic 2 (NFATC2), mRNA |
| 8975 | 22054 | 36597 | 0.64 | 1.0E-111 | AK024453.1 | NT | Homo sapiens mRNA for FLJ00045 protein, partial cds |
| 9008 | 22097 | | 8.43 | 1.0E-111 | BF214902.1 | EST_HUMAN | 601847132F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4078303 5' |
| 9085 | 22164 | 35708 | 15.93 | 1.0E-111 | X17033.1 | NT | Human mRNA for integrin alpha-2 subunit |
| 9085 | 22164 | 35709 | 15.93 | 1.0E-111 | X17033.1 | NT | Human mRNA for integrin alpha-2 subunit |
| 9289 | 22885 | 35914 | 3.37 | 1.0E-111 | AF081395.1 | NT | Homo sapiens Trio isoform mRNA, complete cds |
| 9518 | 22933 | 36162 | 0.54 | 1.0E-111 | BF333210.1 | EST_HUMAN | QV2-BT0817-270900-398-c08 BT0817 Homo sapiens cDNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 10355 | 23390 | 37000 | 1.58 | 1.0E-111 | AA504160.1 | EST_HUMAN | ae68g02.e1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:825170.3' similar to gb:U09235 |
| 10383 | 23418 | | 1.04 | 1.0E-111 | D10083.1 | NT | VACUOLAR ATP SYNTHASE CATALYTIC SUBUNIT A, UBIQUITOUS (HUMAN); |
| 10479 | 23514 | 37127 | 5.58 | 1.0E-111 | AA131248.1 | EST_HUMAN | Homo sapiens RGH1 gene, retrovirus-like element |
| 10995 | 24074 | 37707 | 1.34 | 1.0E-111 | AW289487.1 | EST_HUMAN | z8101.11 Soares pregnant uterus_NbHPU Homo sapiens cDNA clone IMAGE:503549.6' |
| 11299 | 24355 | 38006 | 3.29 | 1.0E-111 | U68159.1 | NT | UI-H-BWO-qlg-d-07-Q-U1.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:2730276.3' |
| 12167 | 25130 | 38828 | 4.07 | 1.0E-111 | 11417801 | NT | Human thrombopodectin receptor (MPL) gene, exons 1,2,3,4,5 and 6 |
| 12741 | 25492 | 32029 | 4.72 | 1.0E-111 | AV708482.1 | EST_HUMAN | Homo sapiens meningioma (disrupted in balanced translocation) 1 (MNT), mRNA |
| 12881 | 25888 | 31855 | 4.82 | 1.0E-111 | W22662.1 | EST_HUMAN | AV708482 ADC Homo sapiens cDNA clone ADCAOB08.6' |
| 13041 | 18504 | 31539 | 1.27 | 1.0E-111 | AB035356.1 | NT | 72C8 Human retina cDNA_Tap5091-cleaved sublibrary Homo sapiens cDNA not directional |
| 623 | 13808 | 26829 | 2.77 | 1.0E-112 | 4501854 | NT | Homo sapiens acetyl-Coenzyme A carboxylase beta (ACACB), mRNA |
| 625 | 13810 | 26831 | 4.84 | 1.0E-112 | U29103.1 | NT | Human etiologic acute regulatory protein (STAR) gene, exon 5 |
| 625 | 13810 | 26832 | 4.84 | 1.0E-112 | U29103.1 | NT | Human etiologic acute regulatory protein (STAR) gene, exon 5 |
| 649 | 13834 | 28660 | 1.82 | 1.0E-112 | BF509039.1 | EST_HUMAN | UI-H-B14-ec1-g-04-Q-U1.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3086023.3' |
| 649 | 13834 | 28661 | 1.82 | 1.0E-112 | BF509039.1 | EST_HUMAN | UI-H-B14-ec1-g-04-Q-U1.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3086023.3' |
| 1026 | 14197 | 27255 | 39.06 | 1.0E-112 | AF157623.1 | NT | Homo sapiens HTRA serine protease (PRSS11) gene, complete cds |
| 1087 | 14253 | 27308 | 1.49 | 1.0E-112 | P52742 | SWISSPROT | ZINC FINGER PROTEIN 135 |
| 1718 | 14868 | 27958 | 7.1 | 1.0E-112 | 7682125 | NT | Homo sapiens KIAA0440 protein (KIAA0440), mRNA |
| 1863 | 15009 | 28115 | 1.11 | 1.0E-112 | AF248540.1 | NT | Homo sapiens KIAA0440 protein (KIAA0440), mRNA |
| 2577 | 15703 | 28823 | 2.83 | 1.0E-112 | BE686859.1 | EST_HUMAN | Homo sapiens Intersectin 2 (SH3D1B) mRNA, complete cds |
| 3147 | 16323 | | 0.76 | 1.0E-112 | 4504116 | NT | 601442674F1 NIH_MGC_63 Homo sapiens cDNA clone IMAGE:3846858.5' |
| 3444 | 16612 | 28630 | 0.61 | 1.0E-112 | A1826511.1 | EST_HUMAN | Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA |
| 3890 | 17147 | 30153 | 0.83 | 1.0E-112 | BE076073.1 | EST_HUMAN | wk45b12.x1 NCI_CGAP_P22 Homo sapiens cDNA clone IMAGE:2418335.3' similar to gb:M81650_rna1 |
| 4726 | 17861 | 30843 | 0.68 | 1.0E-112 | 4504116 | NT | SEMNENOGELIN 1 PROTEIN PRECURSOR (HUMAN); |
| 4875 | 18007 | 30980 | 5.87 | 1.0E-112 | AB037632.1 | NT | MP2-BT0580-090300-113-f09 BT0590 Homo sapiens cDNA |
| 4875 | 18007 | 30981 | 6.87 | 1.0E-112 | AB037632.1 | NT | Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA |
| 4875 | 18007 | 30981 | 6.87 | 1.0E-112 | AB037632.1 | NT | Homo sapiens mRNA for KIAA1411 protein, partial cds |
| 5784 | 18976 | 32282 | 36.7 | 1.0E-112 | N46046.1 | EST_HUMAN | Homo sapiens mRNA for KIAA1411 protein, partial cds |
| 6201 | 19376 | 32727 | 1.33 | 1.0E-112 | AF149773.1 | NT | y95d07.r1 Soares melanocyte 2NbhM Homo sapiens cDNA clone IMAGE:273228.5' |
| 6273 | 19447 | 32705 | 0.66 | 1.0E-112 | AF149773.1 | EST_HUMAN | Homo sapiens NOD1 protein (NOD1) gene, exons 1, 2, and 3 |
| 6273 | 19447 | 32705 | 0.66 | 1.0E-112 | AF149773.1 | EST_HUMAN | UI-HF-BR0p-qls-g-06-Q-U1.r1 NIH_MGC_52 Homo sapiens cDNA clone IMAGE:3075658.5' |
| 6378 | 19548 | 32804 | 0.93 | 1.0E-112 | BE741666.1 | EST_HUMAN | UI-HF-BR0p-qls-g-06-Q-U1.r1 NIH_MGC_92 Homo sapiens cDNA clone IMAGE:3075658.5' |
| 6588 | 18749 | 33132 | 0.7 | 1.0E-112 | BF072815.1 | EST_HUMAN | 601694717F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:3948557.5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6773 | 19928 | 33323 | 0.83 | 1.0E-112 | BE273103.1 | EST_HUMAN | 601142755F1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:3509508 5' |
| 6773 | 19928 | 33324 | 0.83 | 1.0E-112 | BE273103.1 | EST_HUMAN | 601142755F1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:3509508 5' |
| 6981 | 20209 | 33637 | 1.51 | 1.0E-112 | BF574235.1 | EST_HUMAN | 602131405F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4270921 5' |
| 7305 | 20387 | 33847 | 0.68 | 1.0E-112 | AL043299.1 | EST_HUMAN | DKFZp434M0323_f1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434M0323 5' |
| 7491 | 20566 | 34037 | 1.49 | 1.0E-112 | 11416777 | NT | Homo sapiens solute carrier family 6 (neurotransmitter transporter, L-proline), member 7 (SLC6A7), mRNA |
| 7491 | 20566 | 34039 | 1.49 | 1.0E-112 | 11416777 | NT | Homo sapiens solute carrier family 6 (neurotransmitter transporter, L-proline), member 7 (SLC6A7), mRNA |
| 8387 | 21488 | 34896 | 1.76 | 1.0E-112 | AU118051.1 | EST_HUMAN | AU118051 HEMBA1 Homo sapiens cDNA clone HEMBA1002773 6' |
| 8158 | 22236 | 35781 | 2.64 | 1.0E-112 | BE867635.1 | EST_HUMAN | 601443151F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847285 5' |
| 8158 | 22236 | 35782 | 2.84 | 1.0E-112 | BE867635.1 | EST_HUMAN | 601443151F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847285 5' |
| 10097 | 23185 | 38796 | 2.37 | 1.0E-112 | BF114143.4 | EST_HUMAN | 7180g07.x1 Sacroa_NSF_F8_PW_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3523020 3' similar to TR:QB4362 Q84362 |
| 11017 | 24086 | 37735 | 16.73 | 1.0E-112 | AW863327.1 | EST_HUMAN | MR3-SN0009-100400-108-b12 SN0009 Homo sapiens cDNA |
| 11103 | 24175 | 37810 | 1.31 | 1.0E-112 | T83987.1 | EST_HUMAN | yf56d10.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:112243 3' similar to SP:C40H1.1 CE00109 OVARIAN PROTEIN ; |
| 11103 | 24175 | 37811 | 1.31 | 1.0E-112 | T83987.1 | EST_HUMAN | SP:C40H1.1 CE00109 OVARIAN PROTEIN ; |
| 11191 | 24260 | 37896 | 3.14 | 1.0E-112 | AJ249800.1 | NT | Homo sapiens mRNA for secreted modular calcium-binding protein (smoc1 gene) |
| 11359 | 24421 | 38077 | 2.24 | 1.0E-112 | BE260479.1 | EST_HUMAN | 601155323F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3138989 5' |
| 11428 | 24489 | 38163 | 2.26 | 1.0E-112 | A1792603.1 | EST_HUMAN | qk24c08.y6 NCL_CGAP_Ki43 Homo sapiens cDNA clone IMAGE:1869902 5' similar to TR:QB4362 Q84362 |
| 11428 | 24489 | 38164 | 2.26 | 1.0E-112 | A1792603.1 | EST_HUMAN | FUSED TOES ; |
| 11450 | 24519 | 38188 | 4.76 | 1.0E-112 | AW377670.1 | EST_HUMAN | PMO-CT0237-141089-001-h02 CT0237 Homo sapiens cDNA |
| 12096 | 25076 | 38783 | 1.66 | 1.0E-112 | A1792603.1 | EST_HUMAN | FUSED TOES ; |
| 12096 | 25076 | 38784 | 1.66 | 1.0E-112 | A1792603.1 | EST_HUMAN | qk24c08.y6 NCL_CGAP_Ki43 Homo sapiens cDNA clone IMAGE:1869902 5' similar to TR:QB4362 Q84362 |
| 12727 | 26484 | 26887 | 1.31 | 1.0E-112 | AF106866.1 | NT | FUSED TOES ; |
| 761 | 13942 | 26887 | 0.62 | 1.0E-113 | A1365596.1 | EST_HUMAN | Homo sapiens adenylylase gene, complete cds |
| 761 | 13942 | 26888 | 0.82 | 1.0E-113 | A1365596.1 | EST_HUMAN | ac95f01.x1 Schiller meningioma Homo sapiens cDNA clone IMAGE:1953625 3' |
| 865 | 14138 | 27199 | 2.93 | 1.0E-113 | M11665.1 | NT | ac95f01.x1 Schiller meningioma Homo sapiens cDNA clone IMAGE:1953625 3' |
| 1572 | 14725 | 27805 | 3.23 | 1.0E-113 | A1365596.1 | EST_HUMAN | Human X-linked phosphoglycerate kinase gene, exon 8 |
| 1572 | 14725 | 27805 | 3.23 | 1.0E-113 | A1365596.1 | EST_HUMAN | ac95f01.x1 Schiller meningioma Homo sapiens cDNA clone IMAGE:1953625 3' |

Page 457 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 1893 | 15994 | 28240 | 1.63 | 1.0E-113 | AF240775.1 | NT | Homo sapiens eIF4E-transporter mRNA, complete cds |
| 2161 | 15297 | 28422 | 1.49 | 1.0E-113 | BF515218.1 | EST_HUMAN | UI-H-BW1-antif-09-Q-J1st1 NCJ CGAP Sub7 Homo sapiens cDNA clone IMAGE:3082878 3 |
| 3200 | 16375 | 28385 | 2.06 | 1.0E-113 | AJ223948.1 | NT | Homo sapiens mRNA for putative RNA helicase, 3' end |
| 5178 | 18300 | 31263 | 39.66 | 1.0E-113 | 5453562 | NT | Homo sapiens activating transcription factor B (B-ATF), mRNA |
| 5178 | 18300 | 31284 | 38.66 | 1.0E-113 | 5453562 | NT | Homo sapiens activating transcription factor B (B-ATF), mRNA |
| 6359 | 23930 | 31870 | 2.4 | 1.0E-113 | BE780858.1 | EST_HUMAN | 601469465F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3872636 5' |
| 6610 | 19805 | 31870 | 6.37 | 1.0E-113 | AU127214.1 | EST_HUMAN | AU127214 NT2RP2 Homo sapiens cDNA clone NT2RP2000807 5' |
| 6045 | 19228 | 32552 | 3.84 | 1.0E-113 | AU140291.1 | EST_HUMAN | AU140291 PLAGE2 Homo sapiens cDNA clone PLACE2000274 5' |
| 6072 | 19254 | 32583 | 1.02 | 1.0E-113 | AF016535.1 | NT | Homo sapiens P-glycoprotein (mdr1) mRNA, complete cds |
| 6195 | 19371 | 32722 | 2.57 | 1.0E-113 | 11525737 | NT | Homo sapiens UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetyl-galactosaminyltransferase 8 (GalNAc-T8) (GALNT8), mRNA |
| 8285 | 19458 | 32809 | 0.8 | 1.0E-113 | 9861249 | NT | Homo sapiens ATP-binding cassette, sub-family B (MDR/TAP), member 4 (ABCB4), transcript variant B, mRNA |
| 8285 | 19458 | 32810 | 0.8 | 1.0E-113 | 9861249 | NT | Homo sapiens ATP-binding cassette, sub-family B (MDR/TAP), member 4 (ABCB4), transcript variant B, mRNA |
| 8446 | 19813 | 32978 | 0.68 | 1.0E-113 | 6005002 | NT | Homo sapiens glutamate receptor, ionotropic, N-methyl D-aspartate 2A (GRIN2A) mRNA |
| 6446 | 19813 | 32977 | 0.58 | 1.0E-113 | 6005002 | NT | Homo sapiens glutamate receptor, ionotropic, N-methyl D-aspartate 2A (GRIN2A) mRNA |
| 7474 | 20549 | 34021 | 0.63 | 1.0E-113 | BE282161.1 | EST_HUMAN | 601152078F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3608362 5' |
| 7474 | 20549 | 34022 | 0.63 | 1.0E-113 | BE282161.1 | EST_HUMAN | 601152078F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3608362 5' |
| 9093 | 22172 | 35717 | 0.5 | 1.0E-113 | 8922819 | NT | Homo sapiens hypothetical protein FLJ11006 (FLJ11006), mRNA |
| 9286 | 22372 | 35921 | 2.91 | 1.0E-113 | BE382842.1 | EST_HUMAN | 601297709F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3627554 5' |
| 9286 | 22372 | 35922 | 2.91 | 1.0E-113 | BE382842.1 | EST_HUMAN | 601297709F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3627554 5' |
| 9601 | 22656 | 36674 | 0.62 | 1.0E-113 | BE72967.1 | EST_HUMAN | RC1-F10134-28060-021-402 F10134 Homo sapiens cDNA |
| 10036 | 23074 | 36674 | 1.27 | 1.0E-113 | 11429367 | NT | Homo sapiens transmembrane protein 2 (TMEM2), mRNA |
| 10256 | 23291 | 36888 | 1.01 | 1.0E-113 | 5453997 | NT | Homo sapiens RAN binding protein 7 (RANBP7), mRNA |
| 10256 | 23291 | 36888 | 1.01 | 1.0E-113 | 5453997 | NT | Homo sapiens RAN binding protein 7 (RANBP7), mRNA |
| 10842 | 23875 | 37495 | 0.47 | 1.0E-113 | AW50517.1 | EST_HUMAN | UI-HF-BNO-ak-b-12-D-JUL1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3077322 5' |
| 11385 | 24448 | 38107 | 1.89 | 1.0E-113 | AW50519.1 | EST_HUMAN | UI-HF-BNO-ak-b-12-D-JUL1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3077322 5' |
| 11386 | 24457 | 38119 | 5.42 | 1.0E-113 | AW630291.1 | EST_HUMAN | h81a09.y1 NCJ CGAP GU1 Homo sapiens cDNA clone IMAGE:2868176 5' similar to TR:060327 060327 |
| 11386 | 24457 | 38120 | 5.42 | 1.0E-113 | AW630291.1 | EST_HUMAN | h81a09.y1 NCJ CGAP GU1 Homo sapiens cDNA clone IMAGE:2868176 5' similar to TR:060327 060327 |
| 11540 | 24596 | 38272 | 2.91 | 1.0E-113 | BE292968.1 | EST_HUMAN | KIAA0584 PROTEIN ; KIAA0584 PROTEIN ; |
| 59 | 13297 | 26314 | 0.76 | 1.0E-114 | Y17151.2 | NT | 601105528F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2988366 5' |
| | | | | | | | Homo sapiens mRNA for multidrug resistance protein 3 (ABCC3) |

Page 458 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 59 | 13297 | 26316 | 0.75 | 1.0E-114 | Y17151.2 | NT | Homo sapiens mRNA for multidrug resistance protein 3 (ABCC3) |
| 59 | 13297 | 26316 | 0.75 | 1.0E-114 | Y17151.2 | NT | Homo sapiens mRNA for multidrug resistance protein 3 (ABCC3) |
| 682 | 13848 | 26876 | 7.46 | 1.0E-114 | T70551.1 | EST_HUMAN | yf15601.01 Scores fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:109288 3' similar to gb:A21187 ALPHA-2-MACROGLOBULIN PRECURSOR (HUMAN); contains Alu repetitive element |
| 1086 | 14261 | 27318 | 2.54 | 1.0E-114 | 8923087 | NT | Homo sapiens hypodermal protein FLJ20080 (FLJ20080), mRNA |
| 1341 | 14497 | 27569 | 4.65 | 1.0E-114 | 7657529 | NT | Homo sapiens rhadoid tumor deletion region protein 1 (RTDR1), mRNA |
| 1673 | 14825 | 27809 | 1.9 | 1.0E-114 | 6631084 | NT | Homo sapiens minichromosome maintenance deficient (S. cerevisiae) 3 (MCM3), mRNA |
| 1706 | 14856 | 27845 | 5.08 | 1.0E-114 | 6679073 | NT | Homo sapiens nucleoporin-like protein 1 (NLP_1), mRNA |
| 2145 | 15281 | 28406 | 2.52 | 1.0E-114 | BE171984.1 | EST_HUMAN | MRC-HT0559-250200-002-407 HT0559 Homo sapiens cDNA |
| 2330 | 15462 | 28596 | 0.89 | 1.0E-114 | AB002374.1 | NT | Human mRNA for KIAA0376 gene, partial cds |
| 2865 | 13283 | 26291 | 0.6 | 1.0E-114 | AB033102.1 | NT | Homo sapiens mRNA for KIAA1276 protein, partial cds |
| 2865 | 13283 | 26291 | 0.6 | 1.0E-114 | AB033102.1 | NT | Homo sapiens mRNA for KIAA1276 protein, partial cds |
| 3201 | 16376 | 29386 | 2.6 | 1.0E-114 | X04066.1 | NT | Human gene for catalase (EC 1.1.1.6) exon 2 mapping to chromosome 11, band p13 |
| 3240 | 16414 | 29429 | 1.03 | 1.0E-114 | BF206374.1 | EST_HUMAN | 601869932F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:4100214 5' |
| 4124 | 17278 | 30275 | 3.27 | 1.0E-114 | AF149773.1 | NT | Homo sapiens NOD1 protein (NOD1) gene, exons 1, 2, and 3 |
| 4510 | 17949 | 30637 | 0.7 | 1.0E-114 | J03171.1 | NT | Human interferon-alpha receptor (HuIFN-alpha-Rec) mRNA, complete cds |
| 5282 | 18401 | 31370 | 1.1 | 1.0E-114 | AW294203.1 | EST_HUMAN | U1H-B12-cho-4-01-OUL.s1 NCI_CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2726424 3' |
| 5516 | 18714 | 31727 | 1.68 | 1.0E-114 | 4506880 | NT | Homo sapiens sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 5A (SEMA5A) mRNA |
| 5516 | 18714 | 31728 | 1.68 | 1.0E-114 | 4506880 | NT | Homo sapiens sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 5A (SEMA5A) mRNA |
| 5712 | 18905 | 32200 | 0.9 | 1.0E-114 | 9257201 | NT | Homo sapiens clathrin, heavy polypeptide-like 1 (CLTCL1), transcript variant 2, mRNA |
| 7224 | 20088 | 33931 | 0.71 | 1.0E-114 | AB041533.1 | NT | Homo sapiens HCMOGT-1 mRNA for sperm antigen, complete cds |
| 7388 | 20466 | 33932 | 1.09 | 1.0E-114 | AU134187.1 | EST_HUMAN | AU134187 OVARC1 Homo sapiens cDNA clone OVARC1001444 5' |
| 7388 | 20466 | 33932 | 1.09 | 1.0E-114 | AU134187.1 | EST_HUMAN | AU134187 OVARC1 Homo sapiens cDNA clone OVARC1001444 5' |
| 7434 | 20511 | 33983 | 8.2 | 1.0E-114 | Y18000.1 | NT | Homo sapiens NF2 gene |
| 7434 | 20511 | 33984 | 8.2 | 1.0E-114 | Y18000.1 | NT | Homo sapiens NF2 gene |
| 8076 | 21157 | 34675 | 1.94 | 1.0E-114 | 4557600 | NT | Homo sapiens gamma-aminobutyric acid (GABA) A receptor, alpha 2 (GABRA2) mRNA |
| 8360 | 21441 | 34963 | 1.85 | 1.0E-114 | A1363139.1 | EST_HUMAN | qy68405.x1 NCI_CGAP_Bir25 Homo sapiens cDNA clone IMAGE:2017163 3' |
| 8360 | 21441 | 34964 | 1.85 | 1.0E-114 | A1363139.1 | EST_HUMAN | qy68405.x1 NCI_CGAP_Bir25 Homo sapiens cDNA clone IMAGE:2017163 3' |
| 8898 | 21977 | 35516 | 2.99 | 1.0E-114 | U63041.1 | NT | Human neural cell adhesion molecule CD66 mRNA, complete cds |
| 8966 | 22045 | 35589 | 5.81 | 1.0E-114 | AB011133.1 | NT | Homo sapiens mRNA for KIAA0561 protein, partial cds |
| 8966 | 22046 | 35690 | 5.81 | 1.0E-114 | AB011133.1 | NT | Homo sapiens mRNA for KIAA0561 protein, partial cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 9384 | 22459 | 36022 | 0.87 | 1.0E-114 | BF109832.1 | EST_HUMAN | 7189g12.x1 Scores: NSF_FB_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3526847 3' similar to |
| 9814 | 22669 | | 1.3 | 1.0E-114 | AW327466.1 | EST_HUMAN | TR:Q9UHN6 Q9UHN6 TRANSMEMBRANE PROTEIN 2 ; |
| 9602 | 21104 | 34621 | 2.67 | 1.0E-114 | AF077754.1 | NT | dq0305.x1 NIH_MGC_2 Homo sapiens cDNA clone IMAGE:2848744 5' |
| 9748 | 22812 | | 1.36 | 1.0E-114 | M13338.1 | NT | Homo sapiens tyrosine kinase pp60c-src (SRC) gene, exon 12 and partial cds |
| 10343 | 23378 | 36989 | 1.02 | 1.0E-114 | BE870004.1 | EST_HUMAN | Human ceruloplasmin mRNA |
| 10364 | 23399 | 37010 | 1.11 | 1.0E-114 | AL163227.2 | NT | 601449752F1 NIH_MGC_85 Homo sapiens cDNA clone IMAGE:3853500 5' |
| 10762 | 23785 | 37415 | 1.18 | 1.0E-114 | BE171984.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C027 |
| | | | | | | | MRO-HT0559-250200-002-487 HT0559 Homo sapiens cDNA |
| 11027 | 24106 | | 4.31 | 1.0E-114 | BE302868.1 | EST_HUMAN | ba79g12.y1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2806086 5' similar to gb:X17206 40S |
| 11466 | 24525 | 38197 | 8.11 | 1.0E-114 | AV733454.1 | EST_HUMAN | RIBOSOMAL PROTEIN S4 (HUMAN); gb:M20632 Mouse LLRep3 protein mRNA from a repetitive element, complete (MOUSE); |
| 11468 | 24525 | 38198 | 8.11 | 1.0E-114 | AV733454.1 | EST_HUMAN | AV733454 cda Homo sapiens cDNA clone cdABA08 5' |
| 11842 | 24831 | 38522 | 6.28 | 1.0E-114 | AV733454.1 | EST_HUMAN | AV733454 cda Homo sapiens cDNA clone cdABA08 5' |
| 11842 | 24831 | 38523 | 6.28 | 1.0E-114 | AV733454.1 | EST_HUMAN | AV733454 cda Homo sapiens cDNA clone cdABA08 5' |
| 12643 | 26187 | | 4.63 | 1.0E-114 | 11418041 | NT | Homo sapiens TNF-inducible protein CG12-1 (CG12-1), mRNA |
| 12836 | 25816 | 31875 | 2.75 | 1.0E-114 | 11034850 | NT | Homo sapiens hypothetical protein (DJ1042K10.2), mRNA |
| 12836 | 25816 | 31876 | 2.75 | 1.0E-114 | 11034850 | NT | Homo sapiens hypothetical protein (DJ1042K10.2), mRNA |
| 24 | 13262 | 26284 | 3.08 | 1.0E-115 | 4758111 | NT | Homo sapiens HLA-B associated transcript-1 (D6S81E) mRNA |
| 132 | 13358 | 26391 | 1.09 | 1.0E-115 | 4505938 | NT | Homo sapiens polymerase (RNA) II (DNA directed) polypeptide A (220KD) (POLR2A) mRNA |
| 136 | 13362 | | 18.42 | 1.0E-115 | 4557887 | NT | Homo sapiens keratin 18 (KRT18) mRNA |
| 303 | 13519 | 26552 | 2.02 | 1.0E-115 | AW804759.1 | EST_HUMAN | QV4-JM0094-300300-156-308 UM0094 Homo sapiens cDNA |
| | | | | | | | q08f01.x1 NCI_GGAP_G04 Homo sapiens cDNA clone IMAGE:1946809 3' similar to TR:O00638 O00638 |
| 649 | 13742 | 26768 | 1.68 | 1.0E-115 | A1339208.1 | EST_HUMAN | TTF-1 INTERACTING PEPTIDE 5 ; |
| 649 | 13742 | 26767 | 1.68 | 1.0E-115 | A1339208.1 | EST_HUMAN | q08f01.x1 NCI_GGAP_G04 Homo sapiens cDNA clone IMAGE:1946809 3' similar to TR:O00638 O00638 |
| 809 | 13988 | 27041 | 3 | 1.0E-115 | 5174702 | NT | TTF-1 INTERACTING PEPTIDE 5 ; |
| 809 | 13988 | 27042 | 3 | 1.0E-115 | 5174702 | NT | Homo sapiens transforming growth factor beta-activated kinase-binding protein 1 (TAB1), mRNA |
| 811 | 13990 | 27044 | 15.24 | 1.0E-115 | 4503794 | NT | Homo sapiens transforming growth factor beta-activated kinase-binding protein 1 (TAB1), mRNA |
| 1590 | 14742 | 27823 | 1.15 | 1.0E-115 | AF228180.1 | NT | Homo sapiens ferritin, heavy polypeptide 1 (FTH1) mRNA |
| 1590 | 14742 | 27824 | 1.15 | 1.0E-115 | AF228180.1 | NT | Homo sapiens alpha-aminoadipate semialdehyde synthase mRNA, complete cds |
| | | | | | | | Homo sapiens alpha-aminoadipate semialdehyde synthase mRNA, complete cds |
| 1888 | 15032 | 28140 | 1.31 | 1.0E-115 | U78027.1 | NT | Homo sapiens Brubn's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44L) and FTP3 (FTP3) genes, complete cds |
| 2142 | 15278 | 28400 | 1.13 | 1.0E-115 | BE745409.1 | EST_HUMAN | 601579338F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3928832 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 2142 | 15278 | 28401 | 1.13 | 1.0E-115 | BE745489.1 | EST_HUMAN | 601578638F1 NIH_MGC 9 Homo sapiens cDNA clone IMAGE:3928832 5' |
| 2150 | 15286 | 28411 | 1.1 | 1.0E-115 | AB007802.1 | NT | Homo sapiens KIAA0442 mRNA, partial cds |
| 2374 | 15505 | 28631 | 1.11 | 1.0E-115 | AF231124.1 | NT | Homo sapiens foalican-1 mRNA, complete cds |
| 2912 | 15990 | | 1.03 | 1.0E-115 | AW604759.1 | EST_HUMAN | QV4-UM0094-300300-150-b08 UM0094 Homo sapiens cDNA |
| 3184 | 16359 | 28365 | 2.88 | 1.0E-115 | AJ245922.1 | NT | Homo sapiens mRNA for alpha-tubulin 8 (TUBA8 gene) |
| 3184 | 16359 | 29368 | 2.88 | 1.0E-115 | AJ245922.1 | NT | Homo sapiens mRNA for alpha-tubulin 8 (TUBA8 gene) |
| 3581 | 18726 | 29742 | 1.8 | 1.0E-115 | AJ277892.1 | NT | Homo sapiens partial TTN gene for titin |
| 4153 | 17306 | 30289 | 4.2 | 1.0E-115 | AB002348.2 | NT | Homo sapiens mRNA for KIAA0350 protein, partial cds |
| 4521 | 17660 | 30647 | 2.49 | 1.0E-115 | 6812659 | NT | Homo sapiens sir2-like 3 (SIRT3), mRNA |
| 4557 | 17666 | 30674 | 4.28 | 1.0E-115 | 4758279 | NT | Homo sapiens EPHA4 (EPHA4) mRNA |
| 4787 | 17932 | 30918 | 2.88 | 1.0E-115 | AL036857.1 | NT | Novel human mRNA from chromosome 1, which has similarities to BAT2 genes |
| 4797 | 17932 | 30919 | 2.86 | 1.0E-115 | AL036857.1 | NT | Novel human mRNA from chromosome 1, which has similarities to BAT2 genes |
| 5028 | 18155 | 31132 | 2.09 | 1.0E-115 | AL163268.2 | NT | Homo sapiens chromosome 21 segment HS21C068 |
| 5028 | 18155 | 31133 | 2.89 | 1.0E-115 | AL163268.2 | NT | Homo sapiens chromosome 21 segment HS21C068 |
| 5044 | 18172 | 31149 | 1.01 | 1.0E-115 | Y19215.1 | NT | Homo sapiens putative pathHbC pseudogene for hair keratin, exons 1 to 8 |
| 5304 | 18421 | 31391 | 1.23 | 1.0E-115 | 4504668 | NT | Homo sapiens Interleukin 1 receptor, type I (IL1R1) mRNA |
| 5347 | 18460 | 31425 | 0.92 | 1.0E-115 | AB018311.1 | NT | Homo sapiens mRNA for KIAA0768 protein, partial cds |
| 5463 | 18663 | 31642 | 2.8 | 1.0E-115 | AW670336.1 | EST_HUMAN | EST382416 MAGE resequencing, MAGK Homo sapiens cDNA |
| 5540 | 18737 | 31754 | 0.97 | 1.0E-115 | BF665387.1 | EST_HUMAN | 602119346F1 NIH_MGC 56 Homo sapiens cDNA clone IMAGE:4276738 5' |
| 5859 | 18853 | 32136 | 1.74 | 1.0E-115 | 11425128 | NT | Homo sapiens similar to ER to nucleus signalling 1 (H. sapiens) (LOC63433), mRNA |
| 5859 | 18853 | 32137 | 1.74 | 1.0E-115 | 11425128 | NT | Homo sapiens similar to ER to nucleus signalling 1 (H. sapiens) (LOC63433), mRNA |
| 5808 | 18998 | 32304 | 1.15 | 1.0E-115 | A1928789.1 | EST_HUMAN | eu64g01.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2519568 3' similar to gb.L07807 |
| 5808 | 18998 | | | | | | DYNAMIN-1 (HUMAN); |
| 5808 | 18998 | 32305 | 1.15 | 1.0E-115 | A1928789.1 | EST_HUMAN | eu64g01.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2519568 3' similar to gb.L07807 |
| 6391 | 19560 | 32919 | 0.68 | 1.0E-115 | 11426786 | NT | Homo sapiens sperm surface protein (HSS), mRNA |
| 6391 | 19560 | 32920 | 0.68 | 1.0E-115 | 11426786 | NT | Homo sapiens sperm surface protein (HSS), mRNA |
| 6525 | 18880 | 33064 | 9.49 | 1.0E-115 | 11426038 | NT | Homo sapiens similar to ribosomal protein S26 (H. sapiens) (LOC63436), mRNA |
| 6558 | 19817 | 33204 | 1.68 | 1.0E-115 | 7661883 | NT | Homo sapiens KIAA0054 gene product Helicase (KIAA0054), mRNA |
| 6558 | 19817 | 33205 | 1.68 | 1.0E-115 | 7661883 | NT | Homo sapiens KIAA0054 gene product Helicase (KIAA0054), mRNA |
| 7074 | 20127 | 33543 | 0.75 | 1.0E-115 | T86774.1 | EST_HUMAN | y86b08.r1 Soares fetal liver spleen 1NFSL Homo sapiens cDNA clone IMAGE:115095 5' similar to |
| 7428 | 20505 | 33975 | 1.24 | 1.0E-115 | A1076598.1 | EST_HUMAN | SP.DPOG_YEAST P16801 DNA POLYMERASE GAMMA ; |
| 7428 | 20505 | 33976 | 1.24 | 1.0E-115 | A1076598.1 | EST_HUMAN | oz31a08.x1 Soares_totel_fetus_Nb2HF8_Bw Homo sapiens cDNA clone IMAGE:1676914 3' |
| 7428 | 20505 | 33976 | 1.24 | 1.0E-115 | A1076598.1 | EST_HUMAN | oz31a08.x1 Soares_totel_fetus_Nb2HF8_Bw Homo sapiens cDNA clone IMAGE:1676914 3' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 7246 | 20329 | 33775 | 1 | 1.0E-118 | AL043761.1 | EST_HUMAN | DKFZp434O0127.1 434 (synonym: hhes3) Homo sapiens cDNA clone DKFZp434O0127.6' |
| 7776 | 20833 | 34324 | 4.7 | 1.0E-118 | 11431050 | NT | Homo sapiens chromosome 2 open reading frame 3 (CZORF3), mRNA |
| 7780 | 20846 | 34339 | 0.72 | 1.0E-118 | L46690.1 | NT | Homo sapiens very long chain acyl-CoA dehydrogenase gene, exons 1-20, complete cds |
| 8159 | 21241 | 34761 | 1.95 | 1.0E-118 | BE781223.1 | EST_HUMAN | 601469169F1 NIH_MGC_87 Homo sapiens cDNA clone IMAGE:3872247.5' |
| 8577 | 21658 | 35188 | 7 | 1.0E-118 | BE082855.1 | EST_HUMAN | QVO-BT0263-090200-097-H03 BT0263 Homo sapiens cDNA |
| 8577 | 21658 | 35189 | 7 | 1.0E-118 | BE062855.1 | EST_HUMAN | QVO-BT0263-090200-097-H03 BT0263 Homo sapiens cDNA |
| 8683 | 21684 | 35204 | 1.1 | 1.0E-118 | AA443024.1 | EST_HUMAN | z88407.1 Soares_NIHMPu_S1 Homo sapiens cDNA clone IMAGE:3811789.5' |
| 8683 | 21684 | 35205 | 1.1 | 1.0E-118 | AA443024.1 | EST_HUMAN | z88407.1 Soares_NIHMPu_S1 Homo sapiens cDNA clone IMAGE:3811789.5' |
| 8873 | 21952 | 35488 | 0.94 | 1.0E-118 | AB002381.1 | NT | Human mRNA for KIAA0383 gene, partial cds |
| 8873 | 21952 | 35489 | 0.94 | 1.0E-118 | AB002381.1 | NT | Human mRNA for KIAA0383 gene, partial cds |
| 8918 | 21997 | 35536 | 1.94 | 1.0E-118 | 4537732 | NT | Homo sapiens latent transforming growth factor beta binding protein 2 (LTBP2) mRNA |
| 8918 | 21997 | 35537 | 1.94 | 1.0E-118 | 4537732 | NT | Homo sapiens latent transforming growth factor beta binding protein 2 (LTBP2) mRNA |
| 9238 | 22313 | 35855 | 5.15 | 1.0E-118 | BE269134.1 | EST_HUMAN | 60114483F2 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3160502.5' |
| 9268 | 22343 | 36894 | 0.65 | 1.0E-118 | AL048474.2 | EST_HUMAN | DKFZp588K1824.1 188 (synonym: hube1) Homo sapiens cDNA clone DKFZp588K1824 |
| 9782 | 22832 | 36411 | 1.07 | 1.0E-118 | 7657016 | NT | Homo sapiens hypothetical protein (DJ328E18.C1.1), mRNA |
| 10541 | 23578 | 37184 | 1.23 | 1.0E-118 | BE738213.1 | EST_HUMAN | 601307146F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3841603.5' |
| 10541 | 23578 | 37185 | 1.23 | 1.0E-118 | BE738213.1 | EST_HUMAN | 601307146F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3841603.5' |
| 10586 | 23621 | 37228 | 1.75 | 1.0E-118 | BF105407.1 | EST_HUMAN | 7n17609.x1 NCL_CGAP_Brn23 Homo sapiens cDNA clone IMAGE:3564785.3' similar to SW:ZP3A_HUMAN |
| 10752 | 23785 | 37389 | 0.59 | 1.0E-118 | AW296351.1 | EST_HUMAN | P21754 ZONA PELLUCIDA SPERM-BINDING PROTEIN 3A PRECURSOR; |
| | | | | | | | UIH-BWO-alc-a-07-0.U1.s1 NCL_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:2729772.3' |
| | | | | | | | EST188814 HCC cell line (metastasis to liver in mouse) II Homo sapiens cDNA 5' end similar to dynein, light chain 1, cytoplasmic |
| 11555 | 24610 | 38290 | 3.75 | 1.0E-118 | AA315007.1 | EST_HUMAN | 601499514F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3901583.5' |
| 11855 | 24843 | 38539 | 2.92 | 1.0E-118 | BE008876.1 | EST_HUMAN | 601499514F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3901583.5' |
| 11855 | 24843 | 38540 | 2.92 | 1.0E-118 | BE008876.1 | EST_HUMAN | 601499514F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3901583.5' |
| 12071 | 25052 | 38761 | 1.81 | 1.0E-118 | BE218235.1 | EST_HUMAN | h38a08.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3176474.3' similar to TR:Q9Z2H4 |
| 778 | 13958 | 27007 | 2.48 | 1.0E-119 | AF170482.1 | NT | Q8Z3H4 G PROTEIN-COUPLED RECEPTOR LGRA.; |
| 1082 | 16028 | 27284 | 0.93 | 1.0E-119 | 7705807 | NT | Homo sapiens chloride channel CLCA (CLCA) mRNA, complete cds |
| 1987 | 16128 | 28232 | 2.98 | 1.0E-119 | AB023147.1 | NT | Homo sapiens mRNA for KIAA0930 protein, partial cds |
| 3171 | 16346 | 29353 | 1.01 | 1.0E-119 | 8922205 | NT | Homo sapiens CGI-105 protein (LOC51011), mRNA |
| | | | | | | | Homo sapiens hypothetical protein FLJ10052, mRNA |
| 3312 | 16485 | | 2.17 | 1.0E-119 | AA916780.1 | EST_HUMAN | on10605.e1 NCL_CGAP_Lu8 Homo sapiens cDNA clone IMAGE:1586241.3' similar to WP:EO4F8.2 |
| 4083 | 17219 | 30227 | 1.22 | 1.0E-119 | 4504118 | NT | CE01214; |
| 5483 | 18653 | 31832 | 3.86 | 1.0E-119 | AU133398.1 | EST_HUMAN | Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA |
| | | | | | | | AU133399 NT2RP4 Homo sapiens cDNA clone NT2RP4001881.5' |

Page 466 of 550
Table 4
Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO. | Exon SEQ ID NO. | ORF SEQ ID NO. | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 5468 | 18688 | 31846 | 15.48 | 1.0E-119 | M89914.1 | NT | Human neurofibronin (NF1) gene, complete cds |
| 5470 | 18670 | 31850 | 3.28 | 1.0E-119 | BE886121.1 | EST_HUMAN | RC1-NN0073-250800-018-g06 NN0073 Homo sapiens cDNA |
| 5550 | 18747 | 31782 | 1.81 | 1.0E-119 | AV693731.1 | EST_HUMAN | AV693731 GKCC Homo sapiens cDNA clone GKCDH803 5' |
| 5707 | 18900 | 32194 | 0.86 | 1.0E-119 | AL134903.1 | EST_HUMAN | DKFZp762M0710_r1 762 (synonym: hma2) Homo sapiens cDNA clone DKFZp762M0710 5' |
| 5707 | 18900 | 32195 | 0.86 | 1.0E-119 | AL134903.1 | EST_HUMAN | DKFZp762M0710_r1 762 (synonym: hma2) Homo sapiens cDNA clone DKFZp762M0710 5' |
| 6255 | 19429 | 32775 | 6.7 | 1.0E-119 | AI150703.1 | EST_HUMAN | qb77c09.x1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:1706128 3' similar to SW:K1CJ MOUSE P02535 KERATIN, TYPE I CYTOSKELETAL 10 ; |
| 6414 | 19583 | 32944 | 0.71 | 1.0E-119 | AF315683.1 | NT | Homo sapiens matrix metalloproteinase 28 (MMP28) mRNA, complete cds |
| 6414 | 19583 | 32945 | 0.71 | 1.0E-119 | AF315683.1 | NT | Homo sapiens matrix metalloproteinase 28 (MMP28) mRNA, complete cds |
| 6481 | 19628 | 32989 | 1.22 | 1.0E-119 | AI476732.1 | EST_HUMAN | mt23f10.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2157461 3' |
| 6589 | 19750 | 33133 | 2.39 | 1.0E-119 | X06292.1 | NT | Human c-fes/ps proto-oncogene |
| 6601 | 19781 | 33149 | 4.01 | 1.0E-119 | AW974193.1 | EST_HUMAN | EST368280 IMAGE resequences, MAGM Homo sapiens cDNA |
| 7568 | 20640 | 34116 | 1.09 | 1.0E-119 | BE786614.1 | EST_HUMAN | 601592005F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3946081 5' |
| 8862 | 21841 | 35476 | 0.83 | 1.0E-119 | BE815150.1 | EST_HUMAN | 601280594F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3822528 5' |
| 8957 | 22996 | 36592 | 0.46 | 1.0E-119 | 11645921 | NT | Homo sapiens melanoma differentiation associated protein-5 (MDA5), mRNA |
| 10111 | 23149 | 36750 | 0.98 | 1.0E-119 | 11036843 | NT | Homo sapiens KIAA0477 gene product (KIAA0477), mRNA |
| 10311 | 23346 | 36952 | 0.81 | 1.0E-119 | AI149796.1 | EST_HUMAN | qf43a11.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1752764 3' similar to TR:Q13458 |
| 10452 | 23487 | 37095 | 2.29 | 1.0E-119 | AA465124.1 | EST_HUMAN | Q13468 GUANINE NUCLEOTIDE EXCHANGE FACTOR PROTEIN TRIO. ; |
| 10722 | 23765 | 37361 | 1.13 | 1.0E-119 | AJ297701.1 | NT | es32105.1 NCI_CGAP_G0C81 Homo sapiens cDNA clone IMAGE:814977 5' |
| 10766 | 23789 | 37420 | 0.77 | 1.0E-119 | 11425937 | NT | Homo sapiens partial IL-12RB1 gene for IL-12 receptor beta1 chain, exons 18-17 |
| 10766 | 23789 | 37421 | 0.77 | 1.0E-119 | 11425937 | NT | Homo sapiens hypothetical protein FLJ10206 (FLJ10206), mRNA |
| 10844 | 23877 | 37497 | 0.59 | 1.0E-119 | BE561987.1 | EST_HUMAN | Homo sapiens hypothetical protein FLJ10206 (FLJ10206), mRNA |
| 10849 | 23882 | 37502 | 0.73 | 1.0E-119 | AB032281.1 | NT | 601347180F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3687887 5' |
| 11308 | 24373 | 38015 | 1.58 | 1.0E-119 | AJ297701.1 | NT | Homo sapiens Scd mRNA for stearoyl-CoA desaturase, complete cds |
| 11308 | 24373 | 38016 | 1.58 | 1.0E-119 | AJ297701.1 | NT | Homo sapiens partial IL-12RB1 gene for IL-12 receptor beta1 chain, exons 18-17 |
| 11479 | 24538 | | 0.82 | 1.0E-119 | BF568571.1 | EST_HUMAN | Homo sapiens partial IL-12RB1 gene for IL-12 receptor beta1 chain, exons 18-17 |
| 12490 | 25098 | | 5.48 | 1.0E-119 | AW847519.1 | EST_HUMAN | 602186072F1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4310833 5' |
| 12845 | 25882 | | 3.03 | 1.0E-119 | X89211.1 | EST_HUMAN | RC3-CT0212-240959-011-f03 CT0212 Homo sapiens cDNA |
| 247 | 13488 | 26500 | 0.68 | 1.0E-120 | AB018301.1 | NT | H. sapiens DNA for endogenous retroviral like element |
| 312 | 13528 | 26561 | 0.97 | 1.0E-120 | 4607334 | NT | H. sapiens mRNA for KIAA0758 protein, partial cds |
| 1069 | 14232 | 27280 | 2.74 | 1.0E-120 | AF248540.1 | NT | Homo sapiens synaptotagmin 1 (SYNJ1), mRNA |
| 1069 | 14232 | 27291 | 2.74 | 1.0E-120 | AF248540.1 | NT | Homo sapiens Intersectin 2 (SH3D1B) mRNA, complete cds |
| 1456 | 14609 | 27689 | 3.28 | 1.0E-120 | N44873.1 | EST_HUMAN | Homo sapiens Intersectin 2 (SH3D1B) mRNA, complete cds yy40g12.r1 Soares melanocyte 2NblHM Homo sapiens cDNA clone IMAGE:273766 5' |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 1631 | 14783 | 27869 | 11.19 | 1.0E-120 | AF167706.1 | NT | Homo sapiens cyclin-rich repeat-containing protein S52 precursor, mRNA, complete cds |
| 1849 | 14995 | 28098 | 6.58 | 1.0E-120 | 4557250 | NT | Homo sapiens disintegrin and metalloprotease domain 10 (ADAM10) mRNA |
| 2174 | 16309 | 28437 | 1.83 | 1.0E-120 | AB011389.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 2174 | 16309 | 28438 | 1.83 | 1.0E-120 | AB011389.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 3382 | 13628 | 26561 | 1.61 | 1.0E-120 | 4507334 | NT | Homo sapiens synaptobrevin 1 (SYN1), mRNA |
| 4477 | 17617 | 30598 | 2.05 | 1.0E-120 | AF058490.1 | NT | Homo sapiens cAMP-specific phosphodiesterase 8A (PDE8A) mRNA, partial cds |
| 4477 | 17617 | 30599 | 2.05 | 1.0E-120 | AF058490.1 | NT | Homo sapiens cAMP-specific phosphodiesterase 8A (PDE8A) mRNA, partial cds |
| 4784 | 17919 | 30906 | 3.11 | 1.0E-120 | AF098463.1 | NT | Homo sapiens stannocalcin (STC) gene, partial cds |
| 4784 | 17919 | 30907 | 3.11 | 1.0E-120 | AF098463.1 | NT | Homo sapiens stannocalcin (STC) gene, partial cds |
| 5853 | 18043 | 32349 | 16.08 | 1.0E-120 | BF568222.1 | EST_HUMAN | 602183994F1 NIH_MGC_42 Homo sapiens cDNA clone IMAGE:4300174 5' |
| 5853 | 18043 | 32350 | 16.08 | 1.0E-120 | BF568222.1 | EST_HUMAN | 602183994F1 NIH_MGC_42 Homo sapiens cDNA clone IMAGE:4300174 5' |
| 7146 | 20806 | 34295 | 1.84 | 1.0E-120 | D34616.1 | NT | Human TBXAS1 gene for thromboxane synthase, exon 7 |
| 8078 | 21160 | 34677 | 1.38 | 1.0E-120 | Y00067.1 | NT | Human gene for neurofilament subunit M (NF-M) |
| 8078 | 21160 | 34678 | 1.38 | 1.0E-120 | Y00067.1 | NT | Human gene for neurofilament subunit M (NF-M) |
| 8527 | 21608 | 35147 | 2.31 | 1.0E-120 | BF337589.1 | EST_HUMAN | 602036352F1 NCI CGAP Bim64 Homo sapiens cDNA clone IMAGE:4183333 5' |
| 8599 | 21680 | 35218 | 0.9 | 1.0E-120 | AB033057.1 | NT | Homo sapiens mRNA for KIAA1231 protein, partial cds |
| 8599 | 21680 | 35219 | 0.9 | 1.0E-120 | AB033057.1 | NT | Homo sapiens mRNA for KIAA1231 protein, partial cds |
| 8603 | 21684 | 35221 | 1.94 | 1.0E-120 | AB007864.1 | NT | Homo sapiens mRNA, chromosome 1 specific transcript KIAA0495 |
| 8603 | 21684 | 35222 | 1.94 | 1.0E-120 | AB007864.1 | NT | Homo sapiens mRNA, chromosome 1 specific transcript KIAA0495 |
| 8647 | 21727 | 35294 | 1.31 | 1.0E-120 | AB007834.1 | NT | Homo sapiens mRNA for KIAA0465 protein, partial cds |
| 9701 | 22750 | 36319 | 4.57 | 1.0E-120 | BE392102.1 | EST_HUMAN | 601307739F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3625544 5' |
| 9701 | 22750 | 36320 | 4.57 | 1.0E-120 | BE392102.1 | EST_HUMAN | 601307739F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3625544 5' |
| 9946 | 22865 | 36578 | 3.84 | 1.0E-120 | BF306541.1 | EST_HUMAN | 601888956F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4122876 5' |
| 9962 | 23001 | 36597 | 6.7 | 1.0E-120 | ALJ133203.1 | EST_HUMAN | 601888956F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4122876 5' |
| 9979 | 23018 | 36812 | 1.02 | 1.0E-120 | ALJ133203.1 | EST_HUMAN | 601888956F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4122876 5' |
| 10096 | 23134 | | 0.55 | 1.0E-120 | AI604151.1 | EST_HUMAN | Novel human gene mapping to chromosome 13, similar to rat RhoGAP |
| 10281 | 23316 | 36916 | 3.4 | 1.0E-120 | AB029000.1 | NT | CM-ET043-080288-076 BT043 Homo sapiens cDNA |
| 11391 | 24452 | 38115 | 8.66 | 1.0E-120 | BE296387.1 | EST_HUMAN | Homo sapiens mRNA for KIAA1077 protein, partial cds |
| 11625 | 24705 | 38397 | 2.12 | 1.0E-120 | BE667618.1 | EST_HUMAN | 601176727F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3532015 5' |
| 11625 | 24705 | 38398 | 2.12 | 1.0E-120 | BE667618.1 | EST_HUMAN | 601176727F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3532015 5' |
| 12657 | 25436 | 32049 | 1.42 | 1.0E-120 | 11417862 | NT | 601443135F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847281 5' |
| 75 | 13311 | 26337 | 0.62 | 1.0E-121 | Y18000.1 | NT | 601443135F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847281 5' |
| 389 | 13595 | 26931 | 1.35 | 1.0E-121 | AU134963.1 | EST_HUMAN | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 742 | 16020 | 26964 | 1.31 | 1.0E-121 | 5032192 | NT | Homo sapiens NF2 gene |
| | | | | | | | AU134963 PLAGE1 Homo sapiens cDNA clone PLACE1000899 5' |
| | | | | | | | Homo sapiens TNF receptor-associated factor 1 (TRAF1) mRNA |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 2023 | 15164 | 28269 | 1 | 1.0E-121 | 4755139 | NT | Homo sapiens inositol polyphosphate-4-phosphatase, type I, 107KD (INPP4A), splice variant e, mRNA |
| 2023 | 15164 | 28270 | 1 | 1.0E-121 | 4755139 | NT | Homo sapiens inositol polyphosphate-4-phosphatase, type I, 107KD (INPP4A), splice variant e, mRNA |
| 2169 | 15304 | 28431 | 1.22 | 1.0E-121 | L76631.1 | NT | Homo sapiens metabotropic glutamate receptor 1 beta (mGluR1beta) mRNA, complete cds |
| 2643 | 15766 | 28880 | 1.07 | 1.0E-121 | BF344378.1 | EST_HUMAN | 602014759F1 NCI_CGAP_Bm64 Homo sapiens cDNA clone IMAGE:4150286 5' |
| 2643 | 15766 | 28881 | 1.07 | 1.0E-121 | BF344378.1 | EST_HUMAN | 602014759F1 NCI_CGAP_Bm64 Homo sapiens cDNA clone IMAGE:4150286 5' |
| 3150 | 16325 | 29336 | 6.8 | 1.0E-121 | Y19208.1 | NT | Homo sapiens hHb3 gene for hair keratin, exons 1 to 9 |
| 3150 | 16325 | 29337 | 5.8 | 1.0E-121 | Y19208.1 | NT | Homo sapiens hHb3 gene for hair keratin, exons 1 to 9 |
| 3626 | 16790 | 29807 | 1.23 | 1.0E-121 | AB037768.1 | NT | Homo sapiens mRNA for KIAA1937 protein, partial cds |
| 3626 | 16790 | 29808 | 1.23 | 1.0E-121 | AB037768.1 | NT | Homo sapiens mRNA for KIAA1937 protein, partial cds |
| 3768 | 16928 | 29934 | 8.25 | 1.0E-121 | AF155166.2 | NT | Homo sapiens adaptor-related protein complex AP-4 epsilon subunit mRNA, complete cds |
| 4450 | 17600 | 30571 | 1.78 | 1.0E-121 | A1263294.1 | EST_HUMAN | qx37b01.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2005417 3' |
| 5091 | 18219 | 31189 | 3.42 | 1.0E-121 | X91937.1 | NT | H. sapiens EOE-1 gene (exon 17) |
| 5382 | 18594 | 31453 | 0.84 | 1.0E-121 | BE22250.1 | EST_HUMAN | h09f08.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3166119 3' |
| 5679 | 18873 | 32161 | 0.73 | 1.0E-121 | BE271424.1 | EST_HUMAN | 601140485F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3049820 5' |
| 6757 | 19913 | 33308 | 0.64 | 1.0E-121 | M91463.1 | NT | Human glucose transporter (GLUT4) gene, complete cds |
| 7028 | 20164 | | 0.96 | 1.0E-121 | AJ271736.1 | NT | Homo sapiens Xq pseudautosomal region, segment 2/2 |
| 7102 | 18529 | 31483 | 0.79 | 1.0E-121 | AW898088.1 | EST_HUMAN | RC3-NN0066-270400-011-022 NN0066 Homo sapiens cDNA |
| 7102 | 18529 | 31484 | 0.79 | 1.0E-121 | AW898088.1 | EST_HUMAN | RC3-NN0066-270400-011-022 NN0066 Homo sapiens cDNA |
| 8123 | 21205 | 34725 | 1.07 | 1.0E-121 | 11436217 | NT | Homo sapiens gamma-aminobutyric acid (GABA) A receptor, alpha 2 (GABRA2), mRNA |
| 8127 | 21209 | 34729 | 2.51 | 1.0E-121 | D84122.1 | NT | Homo sapiens DNA for prostacyclin synthase, exon 8 |
| 8127 | 21209 | 34730 | 2.51 | 1.0E-121 | D84122.1 | NT | Homo sapiens DNA for prostacyclin synthase, exon 8 |
| 10062 | 23100 | 36702 | 1.02 | 1.0E-121 | AW563558.1 | EST_HUMAN | h05g05.y1 Human Pancreatic islets Homo sapiens cDNA 5' similar to TR:O75467 O75467 CYTOSOLIC |
| 10062 | 23100 | 36703 | 1.02 | 1.0E-121 | AW563558.1 | EST_HUMAN | h05g05.y1 Human Pancreatic islets Homo sapiens cDNA 5' similar to TR:O75467 O75467 CYTOSOLIC |
| 11015 | 24094 | 37733 | 3.45 | 1.0E-121 | 11427788 | NT | Homo sapiens COX11 (yeast) homolog, cytochrome c oxidase assembly protein (COX11), mRNA |
| 11023 | 24102 | 37740 | 1.94 | 1.0E-121 | AF064200.1 | NT | Homo sapiens UDP-glucuronosyltransferase 2B4 precursor (UGT2B4) mRNA, UGT2B4*E458 allele, complete cds |
| 11211 | 24280 | 37819 | 5.74 | 1.0E-121 | 7330334 | NT | Homo sapiens chloride intracellular channel 4 like (CLIC4L), mRNA |
| 11243 | 24312 | 37650 | 1.93 | 1.0E-121 | N59624.1 | EST_HUMAN | yw74c01.s1 Soares fetal liver spleen (NFILS) Homo sapiens cDNA clone IMAGE:248448 3' |
| 278 | 13496 | 26526 | 2.64 | 1.0E-122 | 11526176 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1), mRNA |
| 346 | 13557 | 26595 | 2.33 | 1.0E-122 | AF114488.1 | NT | Homo sapiens intersectin short isoform (ITSN), mRNA, complete cds |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descripbr |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 368 | 13577 | 26810 | 2.66 | 1.0E-122 | 11526176 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1), mRNA |
| 605 | 14080 | 27146 | 3.34 | 1.0E-122 | AF114488.1 | NT | Homo sapiens intersectin short isoform (ITSN), complete cds |
| 1247 | 14406 | 27468 | 5.19 | 1.0E-122 | M20707.1 | NT | Human kappa-immunoglobulin germline pseudogene (Chr22.4) variable region (subgroup V kappa II) |
| 1728 | 14878 | 27968 | 18.7 | 1.0E-122 | AF167706.1 | NT | Homo sapiens cysteine-rich repeat-containing protein S62 precursor, mRNA, complete cds |
| 1750 | 14899 | 27995 | 1.87 | 1.0E-122 | 11418424 | NT | Homo sapiens collagen, type XII, alpha 1 (COL12A1), mRNA |
| 1750 | 14899 | 27996 | 1.61 | 1.0E-122 | 11418424 | NT | Homo sapiens collagen, type XII, alpha 1 (COL12A1), mRNA |
| 1857 | 15003 | 28110 | 6.92 | 1.0E-122 | BE906024.1 | EST_HUMAN | 601497032F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3898388 5' |
| 2560 | 15585 | 28810 | 7.43 | 1.0E-122 | BF316170.1 | EST_HUMAN | 601896173F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4125234 5' |
| 2560 | 15685 | 28811 | 7.43 | 1.0E-122 | BF316170.1 | EST_HUMAN | 601896173F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4126234 5' |
| 2801 | 16080 | 28096 | 4.87 | 1.0E-122 | AF264717.1 | NT | Homo sapiens FIVE domain-containing dual specificity protein phosphatase FYVE-DSP2 mRNA, complete cds |
| 4971 | 18100 | 31076 | 3.81 | 1.0E-122 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 5104 | 18232 | | 1.41 | 1.0E-122 | AW504845.1 | EST_HUMAN | U1-HF-BND-ell-e-03-0-JUL11 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078948 5' |
| 5681 | 18876 | 32164 | 1.2 | 1.0E-122 | BE268039.1 | EST_HUMAN | 601113567F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:3354232 5' |
| 6898 | 18876 | 32164 | 6.8 | 1.0E-122 | BE268039.1 | EST_HUMAN | 601113567F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:3354232 5' |
| 7383 | 20442 | 33904 | 0.84 | 1.0E-122 | AA886671.1 | EST_HUMAN | ak48h08.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1409339 3' |
| 8998 | 22076 | 36814 | 0.8 | 1.0E-122 | AJ276801.1 | NT | Homo sapiens mRNA for doublesex and mab-3 related transcription factor 1 (DMRT1) |
| 9228 | 22306 | 35849 | 1.17 | 1.0E-122 | 11424216 | NT | Homo sapiens lethal giant larvae (Drosophila) homolog 2 (LGL2), mRNA |
| 9524 | 22589 | 36159 | 0.96 | 1.0E-122 | AJ359618.1 | EST_HUMAN | gy32h07.x1 NCI_CGAP_Brn23 Homo sapiens cDNA clone IMAGE:2013767 3' similar to SW:MTA1_HUMAN Q13330 METASTASIS-ASSOCIATED PROTEIN MTA1.1 |
| 9524 | 22589 | 36160 | 0.96 | 1.0E-122 | AJ359618.1 | EST_HUMAN | gy32h07.x1 NCI_CGAP_Brn23 Homo sapiens cDNA clone IMAGE:2013767 3' similar to SW:MTA1_HUMAN Q13330 METASTASIS-ASSOCIATED PROTEIN MTA1.1 |
| 10338 | 23373 | 36883 | 0.84 | 1.0E-122 | AL117234.1 | NT | Novel human gene mapping to chromosome X, isoform of dbi (proto-oncogene) |
| 11233 | 24302 | 37839 | 2.12 | 1.0E-122 | AW68534.1 | EST_HUMAN | EST357904 IMAGE resequences, MAGD Homo sapiens cDNA |
| 11687 | 24744 | 38436 | 1.83 | 1.0E-122 | AB024069.1 | NT | Homo sapiens gene for B120, exon 10 |
| 12231 | 25178 | | 5.28 | 1.0E-122 | 11418187 | NT | Homo sapiens phosphomannomutase 1 (PMM1), mRNA |
| 789 | 13988 | 27019 | 1.53 | 1.0E-123 | BF346274.1 | EST_HUMAN | 602018058F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4158670 5' |
| 789 | 13988 | 27020 | 1.53 | 1.0E-123 | BF346274.1 | EST_HUMAN | 602018058F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4158670 5' |
| 1038 | 14206 | 27283 | 6.18 | 1.0E-123 | AL163249.2 | NT | Homo sapiens chromosome 21 segment HS21C049 |
| 1047 | 14213 | 27270 | 3.36 | 1.0E-123 | 5803114 | NT | Homo sapiens inner membrane protein, mitochondrial (mitbrlin) (IMMT), mRNA |
| 1267 | 14424 | 27491 | 3.83 | 1.0E-123 | 4505818 | NT | Homo sapiens phosphatidylinositol-4-phosphate 6-kinase, type II, beta (PIP6K2B) mRNA, and translated products |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 1267 | 14424 | 27492 | 3.83 | 1.0E-123 | 4505918 | NT | Homo sapiens phosphatidylinositol-4-phosphate 5-kinase, type II, beta (PIP5K2B) mRNA, and translated products |
| 2035 | 15176 | 28288 | 0.94 | 1.0E-123 | 11422479 | NT | Homo sapiens similar to sex comb on midleg (Drosophila)-like 2 (H. sapiens) (LOC63782), mRNA |
| 2166 | 15301 | 28427 | 3.21 | 1.0E-123 | M55419.1 | NT | Human amelogenin (AMELY) gene, 3' end of cds |
| 2166 | 15301 | 28428 | 3.21 | 1.0E-123 | M55419.1 | NT | Human amelogenin (AMELY) gene, 3' end of cds |
| 2166 | 15301 | 28428 | 3.21 | 1.0E-123 | M55419.1 | NT | Human amelogenin (AMELY) gene, 3' end of cds |
| 2389 | 15520 | | 4.21 | 1.0E-123 | 7705862 | NT | Homo sapiens RAB9-like protein (LOC51209), mRNA |
| 3322 | 18495 | 28512 | 0.71 | 1.0E-123 | 6912617 | NT | Homo sapiens glutamyl-peptide cyclotransferase (glutamyl cyclase) (QPCT), mRNA |
| 5563 | 18760 | 31789 | 1.82 | 1.0E-123 | L34219.1 | NT | Homo sapiens retinaldehyde-binding protein (CRALBP) gene, complete cds |
| 5563 | 18760 | 31800 | 1.62 | 1.0E-123 | L34219.1 | NT | Homo sapiens retinaldehyde-binding protein (CRALBP) gene, complete cds |
| 6599 | 18863 | 32185 | 1.76 | 1.0E-123 | BE796748.1 | EST_HUMAN | 601591108F1 NIH_MGC. 7 Homo sapiens cDNA clone IMAGE:3945433 5' |
| 6598 | 18768 | 33148 | 1.63 | 1.0E-123 | AU118435.1 | EST_HUMAN | AU118435 HEMBA1 Homo sapiens cDNA clone HEMBA1003591 5' |
| 7143 | 20276 | 33718 | 0.91 | 1.0E-123 | H53198.1 | EST_HUMAN | y984a03.r1 Soares fetal liver opicon 1NLS Homo sapiens cDNA clone IMAGE:202444 5' similar to SP-YAK1_YEAST P14690 PROTEIN KINASE YAK1 |
| 7156 | 20260 | 33733 | 1.39 | 1.0E-123 | U42224.1 | NT | Human growth hormone releasing hormone gene, exon 7 |
| 7344 | 20424 | 33887 | 0.71 | 1.0E-123 | U55258.1 | NT | Human hBRAVO/INr-CAM precursor (hBRAVO/INr-CAM) gene, complete cds |
| 7692 | 20834 | 34109 | 0.83 | 1.0E-123 | 11525833 | NT | Homo sapiens heparan sulfate (glucosamine) 3-O-sulfotransferase 2 (HS3ST2), mRNA |
| 7820 | 20875 | 34374 | 1.31 | 1.0E-123 | 11436439 | NT | Homo sapiens 2'-5'-oligoadenylate synthetase 2 (OAS2), mRNA |
| 7829 | 20864 | 34366 | 2.22 | 1.0E-123 | BE263001.1 | EST_HUMAN | 60152815F1 NIH_MGC. 19 Homo sapiens cDNA clone IMAGE:3509162 5' |
| 7838 | 20891 | 34393 | 0.6 | 1.0E-123 | 11437202 | NT | Homo sapiens hypothetical protein FLJ20184 (FLJ20184), mRNA |
| 7876 | 21025 | 34538 | 0.6 | 1.0E-123 | N35841.1 | EST_HUMAN | y88411.r1 Soares melanocyte 2N6HM Homo sapiens cDNA clone IMAGE:288917 5' similar to PIR:S48611 S48611 protein kinase PkxP - Phycomyces blakesleeanus |
| 7875 | 21025 | 34539 | 0.6 | 1.0E-123 | N35841.1 | EST_HUMAN | y88411.r1 Soares melanocyte 2N6HM Homo sapiens cDNA clone IMAGE:288917 5' similar to PIR:S48611 S48611 protein kinase PkxP - Phycomyces blakesleeanus |
| 8100 | 21182 | 34701 | 0.78 | 1.0E-123 | AU131831.1 | EST_HUMAN | AU131881 NT2RP3 Homo sapiens cDNA clone NT2RP3003409 5' |
| 8100 | 21182 | 34702 | 0.79 | 1.0E-123 | AU131831.1 | EST_HUMAN | AU131881 NT2RP3 Homo sapiens cDNA clone NT2RP3003409 5' |
| 8732 | 21812 | | 0.7 | 1.0E-123 | AW371924.1 | EST_HUMAN | RC4-BT0311-251189-012-a07 BT0311 Homo sapiens cDNA |
| 9589 | 22711 | 36279 | 2.07 | 1.0E-123 | AB007923.1 | NT | Homo sapiens mRNA for KIAA0454 protein, partial cds |
| 9705 | 22764 | 36325 | 18.77 | 1.0E-123 | U09823.1 | NT | Oryzctegus cuniculatus New Zealand white elongation factor 1 alpha (Rabefaz2) mRNA, complete cds |
| 12020 | 25004 | 38705 | 4.91 | 1.0E-123 | BF677292.1 | EST_HUMAN | 602086791F1 NIH_MGC. 83 Homo sapiens cDNA clone IMAGE:4250379 5' |
| 12020 | 25004 | 38708 | 4.91 | 1.0E-123 | BF677292.1 | EST_HUMAN | 602086791F1 NIH_MGC. 83 Homo sapiens cDNA clone IMAGE:4250379 5' |
| 12114 | 25094 | 38798 | 2.71 | 1.0E-123 | AW450931.1 | EST_HUMAN | U1H-B13-ell-f-10-0-UI.at1 NCI CGAP_Sub6 Homo sapiens cDNA clone IMAGE:2737281 3' |
| 12114 | 25094 | 38799 | 2.71 | 1.0E-123 | AW450931.1 | EST_HUMAN | U1H-B13-ell-f-10-0-UI.at1 NCI CGAP_Sub6 Homo sapiens cDNA clone IMAGE:2737281 3' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO. | Exon SEQ ID NO. | ORF SEQ ID NO. | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 278 | 13487 | 26527 | 1.02 | 1.0E-124 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 279 | 13487 | 26528 | 1.02 | 1.0E-124 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 285 | 13503 | | 1.49 | 1.0E-124 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 498 | 13593 | 26728 | 2.20 | 1.0E-124 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 709 | 13891 | 26928 | 4 | 1.0E-124 | AA397551.1 | EST_HUMAN | Z81B04.11 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:728719 5' similar to TR:G300482 G300482 POL-REVERSE TRANSCRIPTASE HOMOLOG (RETROVIRAL ELEMENT) ; |
| 709 | 13891 | 26927 | 4 | 1.0E-124 | AA397551.1 | EST_HUMAN | Z81B04.11 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:728719 5' similar to TR:G300482 G300482 POL-REVERSE TRANSCRIPTASE HOMOLOG (RETROVIRAL ELEMENT) ; |
| 777 | 13857 | 27008 | 3.72 | 1.0E-124 | AF155654.1 | NT | Human putative ribosomal protein S1 mRNA |
| 831 | 14009 | 27065 | 2.06 | 1.0E-124 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 927 | 14102 | 27165 | 2.87 | 1.0E-124 | 7705448 | NT | Homo sapiens hypothetical protein (HSPC068), mRNA |
| 1343 | 14499 | 27572 | 0.88 | 1.0E-124 | 11419092 | NT | Homo sapiens ring finger protein (RNF), mRNA |
| 1377 | 14532 | 27606 | 6.42 | 1.0E-124 | AF274892.1 | NT | Homo sapiens glucose transporter 3 gene, exons 9, 10, and complete cds |
| 1377 | 14532 | 27606 | 6.42 | 1.0E-124 | AF274892.1 | NT | Homo sapiens glucose transporter 3 gene, exons 9, 10, and complete cds |
| 1858 | 15004 | 28111 | 4.06 | 1.0E-124 | AJ131712.1 | NT | Homo sapiens mRNA for nuclear RNA-helicase (nclH1 gene) |
| 2123 | 15269 | 28379 | 2.16 | 1.0E-124 | BE879524.1 | EST_HUMAN | 60149715F1 NIH_MGC 69 Homo sapiens cDNA clone IMAGE:3893954 5' |
| 2528 | 15653 | 28777 | 0.88 | 1.0E-124 | AB024069.1 | NT | Homo sapiens gene for B120, exon 11 |
| 3579 | 16744 | 29761 | 1.06 | 1.0E-124 | S76694.1 | NT | Homo sapiens ATP-sensitive inwardly rectifying K-channel subunit (KCNJ8/IR1) gene, exon |
| 3579 | 16744 | 29762 | 1.06 | 1.0E-124 | S76694.1 | NT | Homo sapiens ATP-sensitive inwardly rectifying K-channel subunit (KCNJ8/IR1) gene, exon |
| 3739 | 16900 | 29804 | 1.24 | 1.0E-124 | X13794.1 | NT | H. sapiens lactate dehydrogenase B gene exon 1 and 2 (EC 1.1.1.27) (and joined CDS) |
| 4006 | 17163 | 30170 | 0.84 | 1.0E-124 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 4179 | 17329 | 30321 | 0.69 | 1.0E-124 | 4504116 | NT | Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA |
| 4187 | 17337 | 30330 | 0.88 | 1.0E-124 | 4504116 | NT | Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA |
| 4868 | 17899 | 30983 | 2.51 | 1.0E-124 | AB024069.1 | NT | Homo sapiens gene for B120, exon 11 |
| 6050 | 18178 | | 15.32 | 1.0E-124 | M18178.1 | NT | Human fibronectin gene extra type III repeat (EDII), exon x+1 |
| 6205 | 18326 | 31296 | 0.74 | 1.0E-124 | AW983390.1 | EST_HUMAN | EST376463 IMAGE resequences, MACH Homo sapiens cDNA |
| 6412 | 18614 | 31588 | 10.49 | 1.0E-124 | 8922337 | NT | Homo sapiens hypothetical protein FLJ10300 (FLJ10300), mRNA |
| 6789 | 18981 | 32284 | 1.2 | 1.0E-124 | 4506786 | NT | Homo sapiens IQ motif containing GTPase activating protein 1 (IQGAP1) mRNA |
| 8008 | 19193 | 32511 | 6.89 | 1.0E-124 | BF968135.1 | EST_HUMAN | 602124644F1 NIH_MGC 56 Homo sapiens cDNA clone IMAGE:4281635 5' |
| 8288 | 19471 | 32826 | 0.8 | 1.0E-124 | AV711268.1 | EST_HUMAN | AV711263 Cu Homo sapiens cDNA clone CuAADF07 5' |
| 6563 | 19725 | 33103 | 1.12 | 1.0E-124 | 11420654 | NT | Homo sapiens ubiquitin specific protease 9, X chromosome (Drosophila fat facials related) (USP9X), mRNA |
| 7152 | 20286 | 33728 | 3.15 | 1.0E-124 | Y11717.1 | NT | M. musculus mRNA for foxq3 gene. |
| 7287 | 20370 | 33824 | 0.94 | 1.0E-124 | BE271295.1 | EST_HUMAN | 800943771F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:2966585 5' |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 7287 | 20370 | 33825 | 0.84 | 1.0E-124 | BE271295.1 | EST_HUMAN | 600943771F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:2865555 5' |
| 7725 | 20789 | 34278 | 2.38 | 1.0E-124 | AA630331.1 | EST_HUMAN | sec08105.s1 Stragelene HeLa cell s3 937216 Homo sapiens cDNA clone IMAGE:855897 3' |
| 8453 | 21534 | 35004 | 2.73 | 1.0E-124 | 4506554 | NT | Homo sapiens ribosomal protein L5 (RPL5) mRNA |
| 8657 | 21737 | 35277 | 1.24 | 1.0E-124 | AW612108.1 | EST_HUMAN | hg94a09.x1 NCI CGAP_KB11 Homo sapiens cDNA clone IMAGE:2853240 3' similar to TR:Q95162 |
| 8657 | 21737 | 36278 | 1.24 | 1.0E-124 | AW612106.1 | EST_HUMAN | Q95162 PEROXISOMAL SHORT-CHAIN ALCOHOL DEHYDROGENASE ; |
| 9363 | 22438 | 35956 | 0.68 | 1.0E-124 | AI798984.1 | EST_HUMAN | Q95162 PEROXISOMAL SHORT-CHAIN ALCOHOL DEHYDROGENASE ; |
| 9363 | 22438 | 35997 | 0.98 | 1.0E-124 | AI798984.1 | EST_HUMAN | wc43g03.x1 NCI CGAP_P28 Homo sapiens cDNA clone IMAGE:2321428 3' |
| 9891 | 22740 | 36309 | 1.72 | 1.0E-124 | AV645533.1 | EST_HUMAN | wc43g03.x1 NCI CGAP_P28 Homo sapiens cDNA clone IMAGE:2321428 3' |
| 9691 | 22740 | 36310 | 1.72 | 1.0E-124 | AV645533.1 | EST_HUMAN | AV645533 GLC Homo sapiens cDNA clone GLCAC04 3' |
| 9808 | 22848 | 36426 | 7.77 | 1.0E-124 | AI787133.1 | EST_HUMAN | AV645533 GLC Homo sapiens cDNA clone GLCAC04 3' |
| 9808 | 22848 | 36426 | 7.77 | 1.0E-124 | AI787133.1 | EST_HUMAN | wb3102.x1 NCI CGAP_Kd12 Homo sapiens cDNA clone IMAGE:2400891 3' |
| 10075 | 23113 | 36717 | 1.46 | 1.0E-124 | AW503755.1 | EST_HUMAN | wb3102.x1 NCI CGAP_Kd12 Homo sapiens cDNA clone IMAGE:2400891 3' |
| 11302 | 24368 | 38009 | 1.57 | 1.0E-124 | U94776.1 | NT | U1-HIF-BNO-alc-b-04-0-JUL1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078848 5' |
| 11617 | 24668 | 38356 | 3.9 | 1.0E-124 | AW665663.1 | EST_HUMAN | Hj05cd3.x1 Soares_NFL_I_GBC_S1 Homo sapiens cDNA clone IMAGE:2860906 3' |
| 1761 | 23947 | 37575 | 2.18 | 1.0E-124 | A1446455.1 | EST_HUMAN | YKRS PROTEIN ; |
| 1761 | 23947 | 37576 | 2.18 | 1.0E-124 | A1446455.1 | EST_HUMAN | YKRS PROTEIN ; |
| 12310 | 13891 | 26926 | 4.6 | 1.0E-124 | AA397551.1 | EST_HUMAN | z81b04.11 Stragelene schizo brain S11 Homo sapiens cDNA clone IMAGE:728719 5' similar to TR:G300482 |
| 12310 | 13891 | 26927 | 4.6 | 1.0E-124 | AA397551.1 | EST_HUMAN | G300482 POL=REVERSE TRANSCRIPTASE HOMOLOG (RETROVIRAL ELEMENT) ; |
| 12760 | 25522 | 32004 | 1.99 | 1.0E-124 | AB029016.1 | NT | z81b04.11 Stragelene schizo brain S11 Homo sapiens cDNA clone IMAGE:728719 5' similar to TR:G300482 |
| 13080 | 26038 | 31680 | 2.36 | 1.0E-124 | 11417892 | NT | G300482 POL=REVERSE TRANSCRIPTASE HOMOLOG (RETROVIRAL ELEMENT) ; |
| 13080 | 26038 | 31681 | 2.36 | 1.0E-124 | 11417892 | NT | Homo sapiens mRNA for KIAA1083 protein, partial cds |
| 329 | 13543 | | 7.32 | 1.0E-125 | AB032888.1 | NT | Homo sapiens caldesmon binding protein 1 (KIAA0330), mRNA |
| 439 | 13239 | 26239 | 4.69 | 1.0E-125 | BE743922.1 | EST_HUMAN | Homo sapiens caldesmon binding protein 1 (KIAA0330), mRNA |
| 691 | 13847 | 26874 | 2.02 | 1.0E-125 | A110856.1 | EST_HUMAN | g01577891F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3926655 5' |
| 691 | 13847 | 26875 | 2.02 | 1.0E-125 | A110856.1 | EST_HUMAN | HA0086 Human fetal liver cDNA library Homo sapiens cDNA |
| 746 | 13927 | 26968 | 2.42 | 1.0E-125 | AF284750.1 | NT | HA0086 Human fetal liver cDNA library Homo sapiens cDNA |
| 883 | 14059 | 27124 | 1.45 | 1.0E-125 | AA042813.1 | EST_HUMAN | Homo sapiens ALR-like protein mRNA, partial cds |
| | | | | | | | z463cd7.s1 Soares_pregant_uterus_NbHPJ Homo sapiens cDNA clone IMAGE:486540 3' similar to gb:X65887_cds1 OLFACTORY RECEPTOR-LIKE PROTEIN HGMPO7E (HUMAN); |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO. | Exon SEQ ID NO. | ORF SEQ ID NO. | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 1023 | 14194 | 27262 | 1.54 | 1.0E-125 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 1177 | 14340 | 27364 | 1.73 | 1.0E-125 | 7662270 | NT | Homo sapiens KIAA0744 gene product histone deacetylase 7 (KIAA0744), mRNA |
| 1707 | 16045 | 27948 | 1.44 | 1.0E-125 | 7661867 | NT | Homo sapiens KIAA0022 gene product (KIAA0022), mRNA |
| 1854 | 15000 | 28108 | 5.91 | 1.0E-125 | AF015450.1 | NT | Homo sapiens Usurpin-alpha mRNA, complete cds |
| 1854 | 15000 | 28107 | 5.91 | 1.0E-125 | AF015450.1 | NT | Homo sapiens Usurpin-alpha mRNA, complete cds |
| 2433 | 15661 | 28887 | 4.81 | 1.0E-125 | AA011278.1 | EST_HUMAN | z01g09.71 Scores_fetal_liver_spleen_INFLS_S1 Homo sapiens cDNA clone IMAGE:428568 5' |
| 2573 | 15698 | 28820 | 0.96 | 1.0E-125 | AA042813.1 | EST_HUMAN | gb:X65957 cds1 OLFATORY RECEPTOR-LIKE PROTEIN HGMP07E (HUMAN); |
| 2661 | 15783 | 28898 | 2.34 | 1.0E-125 | 4504698 | NT | Homo sapiens inhibin, alpha (INH4) mRNA |
| 2661 | 15783 | 28899 | 2.34 | 1.0E-125 | 4504698 | NT | Homo sapiens inhibin, alpha (INH4) mRNA |
| 3681 | 17119 | 30123 | 1.33 | 1.0E-125 | AA042813.1 | EST_HUMAN | z01g09.71 Scores_pregant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:486540 3' similar to |
| 4672 | 17807 | 30796 | 1.82 | 1.0E-125 | 11425114 | NT | gb:X65957 cds1 OLFATORY RECEPTOR-LIKE PROTEIN HGMP07E (HUMAN); |
| 4672 | 17807 | 30797 | 1.82 | 1.0E-125 | 11425114 | NT | Homo sapiens zinc finger protein ZNF287 (ZNF287), mRNA |
| 4739 | 17874 | 30867 | 0.85 | 1.0E-125 | BE315412.1 | EST_HUMAN | Homo sapiens zinc finger protein ZNF287 (ZNF287), mRNA |
| 5877 | 19067 | 32376 | 0.65 | 1.0E-125 | BF683645.1 | EST_HUMAN | 601141152F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3140766 5' |
| 5894 | 19178 | 32501 | 1.39 | 1.0E-125 | 11436448 | NT | 602139874F1 NIH_MGC_49 Homo sapiens cDNA clone IMAGE:4300770 5' |
| 6013 | 19197 | 32614 | 1.2 | 1.0E-125 | BE175169.1 | EST_HUMAN | Homo sapiens KIAA0985 protein (KIAA0985), mRNA |
| 6094 | 19236 | 32661 | 3.63 | 1.0E-125 | BE692860.1 | EST_HUMAN | QV2-HT0577-010500-165-508 HT0577 Homo sapiens cDNA |
| 6096 | 19277 | 32806 | 0.85 | 1.0E-125 | AI878904.1 | EST_HUMAN | 601433472F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918952 5' |
| 6412 | 19581 | 32042 | 0.72 | 1.0E-125 | BE736055.1 | EST_HUMAN | tu67c07.x1 NC1_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2266108 3' similar to WP:C45G9.2 |
| 6711 | 19869 | 33268 | 3.71 | 1.0E-125 | BE562526.1 | EST_HUMAN | CE01854 |
| 6711 | 19869 | 33260 | 3.71 | 1.0E-125 | BE562526.1 | EST_HUMAN | 601305670F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3840097 5' |
| 7207 | 20072 | 33483 | 4.06 | 1.0E-125 | X03427.1 | NT | 601335826F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3689790 5' |
| 7207 | 20072 | 33484 | 4.06 | 1.0E-125 | X03427.1 | NT | 601335826F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3689790 5' |
| 7700 | 20765 | 34248 | 1.56 | 1.0E-125 | BE278623.1 | EST_HUMAN | Homo sapiens IGF-II gene, exon 5 |
| 7833 | 20863 | 34491 | 0.59 | 1.0E-125 | 11425572 | NT | Homo sapiens IGF-II gene, exon 5 |
| 8743 | 21822 | 35357 | 1.49 | 1.0E-125 | U90268.1 | NT | 601169076F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3505603 5' |
| 8743 | 21822 | 35358 | 1.49 | 1.0E-125 | U90268.1 | NT | Homo sapiens adaptor-related protein complex 2, beta 1 subunit (AP2B1), mRNA |
| 9318 | 22394 | 35946 | 4.15 | 1.0E-125 | BE181640.1 | EST_HUMAN | Human chromosome 10 duplicated adrenoleukodystrophy (ALD) gene segment containing exons 8-10 |
| 9318 | 22394 | 35946 | 4.15 | 1.0E-125 | BE181640.1 | EST_HUMAN | Human chromosome 10 duplicated adrenoleukodystrophy (ALD) gene segment containing exons 8-10 |
| 9318 | 22394 | 35946 | 4.15 | 1.0E-125 | BE181640.1 | EST_HUMAN | QV1-HT0638-070500-191-d12 HT0638 Homo sapiens cDNA |
| 9318 | 22394 | 35946 | 4.15 | 1.0E-125 | BE181640.1 | EST_HUMAN | QV1-HT0638-070500-191-d12 HT0638 Homo sapiens cDNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 9581 | 22723 | 36293 | 1.06 | 1.0E-125 | AI566988.1 | EST_HUMAN | tn62b03.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2171981 3' similar to TR:Q14089 Q14089 |
| 10870 | 23704 | 37313 | 0.72 | 1.0E-125 | BE794576.1 | EST_HUMAN | HYPOTHETICAL PROTEIN; |
| 10712 | 23745 | 37351 | 1.06 | 1.0E-125 | AB002298.1 | NT | 607590345F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3944531 5' |
| 10921 | 24004 | 37639 | 3.03 | 1.0E-125 | AF043458.1 | NT | Human mRNA for KIAA0300 gene, partial cds |
| 11091 | 24165 | 37802 | 1.34 | 1.0E-126 | 11425570 | NT | Homo sapiens LREL gene, exon 5 |
| 11357 | 24418 | 38076 | 2.42 | 1.0E-125 | AL040855.1 | EST_HUMAN | Homo sapiens ryanodine receptor 1 (skeletal) (RYR1), mRNA |
| 11401 | 24482 | 38126 | 3.35 | 1.0E-125 | AB014587.1 | NT | DKFZp434N2414_r1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434N2414 5' |
| 11536 | 24594 | 38303 | 2.13 | 1.0E-125 | R61450.1 | EST_HUMAN | Homo sapiens mRNA for KIAA0667 protein, partial cds |
| 11568 | 24623 | 38309 | 5.32 | 1.0E-125 | AF026029.1 | NT | Homo sapiens myosin, heavy polypeptide 1, skeletal muscle, adult (MYH1), mRNA |
| 11575 | 24630 | 38376 | 2.27 | 1.0E-125 | AW812859.1 | EST_HUMAN | Homo sapiens ptd(A) binding protein II (PABP2) gene, complete cds |
| 11696 | 24665 | 38376 | 4.71 | 1.0E-125 | BE074267.1 | EST_HUMAN | RC3-STO188-250200-018-c11 ST0188 Homo sapiens cDNA |
| 11763 | 24763 | 38479 | 4.71 | 1.0E-125 | BE074267.1 | EST_HUMAN | QV3-BT0569-020200-075-g09 BT0569 Homo sapiens cDNA |
| 11763 | 24763 | 38480 | 4.71 | 1.0E-125 | BE074267.1 | EST_HUMAN | QV3-BT0569-020200-075-g09 BT0569 Homo sapiens cDNA |
| 795 | 13974 | 27027 | 2.16 | 1.0E-128 | 4768007 | NT | Homo sapiens CDC-like kinase (CLK) mRNA |
| 798 | 13977 | 27030 | 1.74 | 1.0E-126 | M81636.1 | NT | Human laminin B1 chain gene, exon 20 |
| 942 | 14116 | 27175 | 1.53 | 1.0E-128 | X68735.1 | NT | H. sapiens gene for alpha1-antitrypsin, exon 3 |
| 2663 | 15755 | 28900 | 4.55 | 1.0E-126 | 6382078 | NT | Homo sapiens RAN binding protein 2 (RANBP2), mRNA |
| 3140 | 16316 | 29329 | 8.12 | 1.0E-126 | AA160709.1 | EST_HUMAN | z072c03.r1 Stratiotes pancreas (#837208) Homo sapiens cDNA clone IMAGE:592420 5' |
| 3140 | 16316 | 29330 | 8.12 | 1.0E-126 | AA160709.1 | EST_HUMAN | z072c03.r1 Stratiotes pancreas (#837208) Homo sapiens cDNA clone IMAGE:592420 5' |
| 3719 | 16860 | 29866 | 0.87 | 1.0E-126 | X63941.1 | NT | H. sapiens DNA for liver cytochrome b5 pseudogene |
| 3745 | 16906 | 29910 | 2.52 | 1.0E-126 | 7657038 | NT | Homo sapiens death receptor 6 (DR6), mRNA |
| 4908 | 18038 | 31026 | 1.08 | 1.0E-126 | AF101108.1 | NT | Homo sapiens collagen type XI alpha-1 (COL11A1) gene, exon 63 |
| 4908 | 18038 | 31027 | 1.08 | 1.0E-126 | AF101108.1 | NT | Homo sapiens collagen type XI alpha-1 (COL11A1) gene, exon 63 |
| 4856 | 18086 | 31062 | 1.81 | 1.0E-126 | N34078.1 | EST_HUMAN | yx78c08.r1 Soares melanocyte 2N8HM Homo sapiens cDNA clone IMAGE:267850 5' |
| 5820 | 19010 | 32316 | 0.88 | 1.0E-126 | T66988.1 | EST_HUMAN | yx52b12.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:56527 3' |
| 6392 | 19532 | 32891 | 2.81 | 1.0E-126 | AA460075.1 | EST_HUMAN | z066e03.r1 Soares total fetus Nb2Hf8_9w Homo sapiens cDNA clone IMAGE:768444 5' similar to |
| 6419 | 19588 | 32851 | 4.33 | 1.0E-126 | AB040958.1 | NT | TR:G1145980 G1145980 TITIN; |
| 6419 | 19588 | 32852 | 4.33 | 1.0E-126 | AB040958.1 | NT | Homo sapiens mRNA for KIAA1525 protein, partial cds |
| 7669 | 20735 | 34212 | 0.9 | 1.0E-126 | AF257737.1 | NT | Homo sapiens mRNA for KIAA1525 protein, partial cds |
| 7669 | 20735 | 34213 | 0.9 | 1.0E-126 | AF257737.1 | NT | Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds |
| 8082 | 21144 | 34662 | 0.73 | 1.0E-126 | AB037715.1 | NT | Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds |
| 8082 | 21144 | 34663 | 0.73 | 1.0E-126 | AB037715.1 | NT | Homo sapiens mRNA for KIAA1294 protein, partial cds |
| 8082 | 21144 | 34663 | 0.73 | 1.0E-126 | AB037715.1 | NT | Homo sapiens mRNA for KIAA1294 protein, partial cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO. | Exon SEQ ID NO. | ORF SEQ ID NO. | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 8177 | 21269 | 34781 | 2.42 | 1.0E-126 | X16609.1 | NT | Human mRNA for ankyrin (variant 2.1) |
| 8377 | 21458 | 34982 | 0.8 | 1.0E-126 | AA483338.1 | EST_HUMAN | ne74b12.s1 NCI_COAP_Ew1 Homo sapiens cDNA clone IMAGE:808983 similar to SW:TSO6_HUMAN |
| 10000 | 23038 | 36829 | 0.57 | 1.0E-126 | 4505424 | NT | P88066 TUMOR NECROSIS FACTOR-INDUCIBLE PROTEIN TSO-9 PRECURSOR ; |
| 11089 | 24172 | 37807 | 2.01 | 1.0E-126 | BF683175.1 | EST_HUMAN | Homo sapiens neuro-oncological ventral antigen 1 (NOVA1), splice variant 1, mRNA |
| 11806 | 24768 | 38494 | 2.2 | 1.0E-126 | BE261680.1 | EST_HUMAN | 602139138F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4298240 5' |
| 12823 | 18500 | 31536 | 6.48 | 1.0E-126 | BE743922.1 | EST_HUMAN | 601149404F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3502129 5' |
| 176 | 13400 | 26429 | 2.92 | 1.0E-127 | AB024597.1 | NT | 601577981F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3928885 5' |
| 178 | 13400 | 26430 | 2.92 | 1.0E-127 | AB024597.1 | NT | Homo sapiens mRNA for casein kinase I epsilon, complete cds |
| 177 | 13400 | 26430 | 2.75 | 1.0E-127 | AB024597.1 | NT | Homo sapiens mRNA for casein kinase I epsilon, complete cds |
| 284 | 13502 | 26535 | 2.14 | 1.0E-127 | D87675.1 | NT | Homo sapiens mRNA for casein kinase I epsilon, complete cds |
| 284 | 13502 | 26536 | 2.14 | 1.0E-127 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 804 | 14078 | 27145 | 1.17 | 1.0E-127 | AF114498.1 | NT | Homo sapiens interseclin short isoform (ITSN) mRNA, complete cds |
| 839 | 14113 | 27174 | 4.81 | 1.0E-127 | U72621.2 | NT | Homo sapiens lost on transfection LOT1 mRNA, complete cds |
| 1726 | 14876 | 27987 | 2.22 | 1.0E-127 | 4827053 | NT | Homo sapiens leukocyte immunoglobulin-like receptor, subfamily A (with TM domain), member 1 (LILRA1), mRNA |
| 2127 | 15263 | 28382 | 1.97 | 1.0E-127 | 5803065 | NT | Homo sapiens leukocyte immunoglobulin-like receptor, subfamily A (with TM domain), member 1 (LILRA1), mRNA |
| 2127 | 15263 | 28383 | 1.97 | 1.0E-127 | 5803065 | NT | Homo sapiens leukocyte immunoglobulin-like receptor, subfamily A (with TM domain), member 1 (LILRA1), mRNA |
| 2273 | 15408 | 28635 | 17.48 | 1.0E-127 | 4506820 | NT | Homo sapiens ribosomal protein L28 (RPL28) mRNA |
| 2418 | 15547 | 28675 | 3.12 | 1.0E-127 | AF245505.1 | NT | Homo sapiens ediccan mRNA, complete cds |
| 2874 | 16764 | 28911 | 21.46 | 1.0E-127 | X12881.1 | NT | Human mRNA for cytokeratin 18 |
| 3781 | 16942 | 29948 | 0.61 | 1.0E-127 | AF114488.1 | NT | Homo sapiens interseclin short isoform (ITSN) mRNA, complete cds |
| 3913 | 17072 | 30070 | 0.7 | 1.0E-127 | AW161297.1 | EST_HUMAN | au80608.y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2782594 5' similar to TR-O15170 Q15170 TRANSCRIPTION FACTOR S-II-RELATED PROTEIN ; contains element MER22 repetitive element ; |
| 4232 | 17378 | 30368 | 0.59 | 1.0E-127 | AF135188.1 | NT | Homo sapiens delayed rectifier potassium channel subunit 1aK mRNA, complete cds |
| 4388 | 17511 | 30491 | 24.93 | 1.0E-127 | 7706239 | NT | Homo sapiens neuroblastoma-amplified protein (LOC51594), mRNA |
| 4368 | 17511 | 30492 | 24.93 | 1.0E-127 | 7706239 | NT | Homo sapiens neuroblastoma-amplified protein (LOC51594), mRNA |
| 4818 | 17766 | 30737 | 0.83 | 1.0E-127 | AF252297.1 | NT | Homo sapiens cytochrome P450 retinoid metabolizing protein P450RA-2 mRNA, complete cds |
| 4726 | 17860 | 30842 | 6.74 | 1.0E-127 | 4506394 | NT | Homo sapiens RAD1 (S. pombe) homolog (RAD1) mRNA, and translated products |
| 4766 | 17890 | | 2.69 | 1.0E-127 | AL163288.2 | NT | Homo sapiens chromosome 21 segment HS21C088 |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 4785 | 17930 | 30916 | 4.36 | 1.0E-127 | 6912639 | NT | Homo sapiens Ring1 and YY1 binding protein (RYBP), mRNA |
| 5824 | 19014 | 32320 | 1.57 | 1.0E-127 | W03547.1 | EST_HUMAN | za01a10.r1 Scores melanocyte 2NblHM Homo sapiens cDNA clone IMAGE:281258 5' similar to SW_PIP6_RAT P10688 1-PHOSPHATIDYLINOSITOL-4,5-BISPHOSPHATE PHOSPHODIESTERASE DELTA 1; |
| 5854 | 19044 | 32351 | 0.91 | 1.0E-127 | 4826863 | NT | Homo sapiens neuronal cell adhesion molecule (NRCAM) mRNA |
| 5923 | 19110 | 32423 | 4.18 | 1.0E-127 | X85784.1 | NT | H. sapiens NOS2 gene, exon 8 |
| 6291 | 19464 | 32816 | 2.23 | 1.0E-127 | X84060.1 | NT | H. sapiens TCF11 gene, exon 3-6 |
| 6451 | 19818 | 32881 | 5.73 | 1.0E-127 | 4504778 | NT | Homo sapiens Integrin, beta 8 (ITGB8) mRNA |
| 6787 | 19882 | 33352 | 1.09 | 1.0E-127 | 11421595 | NT | Homo sapiens immunoglobulin superfamily, member 3 (IGSF3), mRNA |
| 7208 | 20073 | 33486 | 0.81 | 1.0E-127 | 4826977 | NT | Homo sapiens reelin (RELN) mRNA |
| 7984 | 21014 | 34525 | 1.31 | 1.0E-127 | 11421914 | NT | Homo sapiens Pendred syndrome (PDS), mRNA |
| 7984 | 21014 | 34526 | 1.31 | 1.0E-127 | 11421914 | NT | Homo sapiens Pendred syndrome (PDS), mRNA |
| 7973 | 21023 | 34536 | 0.83 | 1.0E-127 | BF671355.1 | EST_HUMAN | 602151222F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4292575 5' |
| 8088 | 22167 | 35713 | 0.81 | 1.0E-127 | 11427235 | NT | Homo sapiens Chediak-Higashi syndrome 1 (CHS1), mRNA |
| 8088 | 22167 | 35714 | 0.81 | 1.0E-127 | 11427235 | NT | Homo sapiens Chediak-Higashi syndrome 1 (CHS1), mRNA |
| 9840 | 22880 | 36462 | 3.73 | 1.0E-127 | AF274863.1 | NT | Homo sapiens secretory pathway component Sec31B-1 mRNA, alternatively spliced, complete cds |
| 9840 | 22880 | 36463 | 3.73 | 1.0E-127 | AF274863.1 | NT | Homo sapiens secretory pathway component Sec31B-1 mRNA, alternatively spliced, complete cds |
| 10077 | 23116 | 36718 | 0.86 | 1.0E-127 | AI298932.1 | EST_HUMAN | gm94h09.x1 NCI_CQAP_L45 Homo sapiens cDNA clone IMAGE:1886448 3' |
| 10551 | 23588 | 37194 | 0.89 | 1.0E-127 | 11427235 | NT | Homo sapiens Chediak-Higashi syndrome 1 (CHS1), mRNA |
| 11426 | 24487 | 38150 | 5.94 | 1.0E-127 | 11417339 | NT | Homo sapiens similar to heat shock 70kD protein 9B (mortalin-2) (H. sapiens) (LOC83184), mRNA |
| 11426 | 24487 | 38151 | 5.84 | 1.0E-127 | 11417339 | NT | Homo sapiens similar to heat shock 70kD protein 9B (mortalin-2) (H. sapiens) (LOC83184), mRNA |
| 11927 | 24913 | 38614 | 1.55 | 1.0E-127 | BE885415.1 | EST_HUMAN | 601434784F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918917 6' |
| 11927 | 24913 | 38615 | 1.55 | 1.0E-127 | BE885415.1 | EST_HUMAN | 601434784F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918917 6' |
| 12539 | 13400 | 26429 | 3.03 | 1.0E-127 | AB024597.1 | NT | Homo sapiens mRNA for casein kinase I epsilon, complete cds |
| 12539 | 13400 | 26430 | 3.03 | 1.0E-127 | AB024597.1 | NT | Homo sapiens mRNA for casein kinase I epsilon, complete cds |
| 12763 | 25507 | 32037 | 1.74 | 1.0E-127 | AB011398.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 13170 | 26044 | | 1.84 | 1.0E-127 | AB011398.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 472 | 13667 | 26700 | 1.56 | 1.0E-128 | BE385617.1 | EST_HUMAN | 601278127F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3618822 5' |
| 1179 | 14342 | 27388 | 0.96 | 1.0E-128 | 4758081 | NT | Homo sapiens chondroitin sulfate proteoglycan 2 (versican) (CSPG2) mRNA |
| 1179 | 14342 | 27397 | 0.96 | 1.0E-128 | 4758081 | NT | Homo sapiens chondroitin sulfate proteoglycan 2 (versican) (CSPG2) mRNA |
| 2132 | 15268 | 28387 | 18.07 | 1.0E-128 | U02523.1 | NT | Human FAU1P pseudogene, trinucleotide repeat regions |
| 2132 | 15268 | 28388 | 18.07 | 1.0E-128 | U02523.1 | NT | Human FAU1P pseudogene, trinucleotide repeat regions |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 2283 | 15415 | 28547 | 37.91 | 1.0E-128 | 4508718 | NT | Homo sapiens ribosomal protein S2 (RPS2) mRNA |
| 2516 | 15642 | | 1.11 | 1.0E-128 | 11437455 | NT | Homo sapiens chromatin-specific transcription elongation factor, 140 kDa subunit (FACTP140), mRNA |
| 3491 | 16648 | 29664 | 1.17 | 1.0E-128 | AB033073.1 | NT | Homo sapiens mRNA for KIAA1247 protein, partial cds |
| 4786 | 17821 | 30909 | 7.27 | 1.0E-128 | 11428673 | NT | Homo sapiens prospero-related homeobox 1 (PROX1), mRNA |
| 5652 | 18956 | 32139 | 0.75 | 1.0E-128 | X69638.1 | NT | H. sapiens gene for inter-alpha-trypsin inhibitor heavy chain H1, exon 12 |
| 6548 | 19710 | 33088 | 1.5 | 1.0E-128 | 11420965 | NT | Homo sapiens phosphodiesterase 1C, calmodulin-dependent (PDE1C), mRNA |
| 7070 | 20123 | 33538 | 6.26 | 1.0E-128 | BF224345.1 | EST_HUMAN | 7q86b10.x1 NCI CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3 |
| 8745 | 21824 | 35360 | 0.67 | 1.0E-128 | AB007823.1 | NT | Homo sapiens mRNA for KIAA0454 protein, partial cds |
| 8745 | 21824 | 35361 | 0.67 | 1.0E-128 | AB007823.1 | NT | Homo sapiens mRNA for KIAA0454 protein, partial cds |
| 10341 | 23376 | 36987 | 1.29 | 1.0E-128 | AA639198.1 | EST_HUMAN | na04a11.1 NCI CGAP_Ew1 Homo sapiens cDNA clone IMAGE:1182820 similar to TR:G851338 G951338 |
| 10949 | 24031 | 37668 | 3.94 | 1.0E-128 | 11426254 | NT | CHROMOSOME SEGREGATION GENE HOMOLOG CAS.; |
| 10957 | 24038 | 37673 | 3.61 | 1.0E-128 | AA926859.1 | EST_HUMAN | Homo sapiens glutamate receptor, ionotropic, N-methyl D-aspartate 2D (GRIN2D), mRNA |
| 11210 | 24279 | 37818 | 1.98 | 1.0E-128 | BE887554.1 | EST_HUMAN | om68h08.s1 NCI CGAP_GC4 Homo sapiens cDNA clone IMAGE:3913371 6' |
| 12402 | 25282 | | 4.26 | 1.0E-128 | AW955290.1 | EST_HUMAN | DEPENDENT KINASES REGULATORY SUBUNIT 1 (HUMAN); |
| 124 | 13621 | 26663 | 1.93 | 1.0E-128 | S37722.1 | NT | 601511912F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913371 6' |
| 426 | 13621 | 26663 | 1.85 | 1.0E-128 | S37722.1 | NT | EST367360 MAGE sequences, MAGEC Homo sapiens cDNA |
| 1756 | 14906 | 27099 | 3.74 | 1.0E-128 | AL086880.1 | NT | insulin-like growth factor binding protein-2 [human, placenta, Genomic, 1019 nt, segment 2 of 4] |
| | | | | | | | Novel human mRNA containing Zinc finger C2H2 type domains |
| | | | | | | | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 1761 | 14910 | 28004 | 1.66 | 1.0E-128 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 1761 | 14910 | 28005 | 1.66 | 1.0E-128 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 1894 | 16037 | 28145 | 4.07 | 1.0E-128 | 11418522 | NT | Homo sapiens zinc finger protein 76 (expressed in testis) (ZNF76), mRNA |
| 2838 | 16552 | 29058 | 2.93 | 1.0E-128 | 4505682 | NT | Homo sapiens platelet-derived growth factor receptor, beta polypeptide (PDGFRB) mRNA |
| 2838 | 16552 | 29059 | 2.93 | 1.0E-128 | 4505682 | NT | Homo sapiens platelet-derived growth factor receptor, beta polypeptide (PDGFRB) mRNA |
| 3198 | 16373 | 29380 | 1.43 | 1.0E-128 | Q14585 | SWISSPROT | ZINC FINGER PROTEIN HZF10 |
| 3198 | 16373 | 29381 | 1.43 | 1.0E-128 | Q14585 | SWISSPROT | ZINC FINGER PROTEIN HZF10 |
| 3198 | 16373 | 29382 | 1.43 | 1.0E-128 | Q14585 | SWISSPROT | ZINC FINGER PROTEIN HZF10 |
| 4279 | 17424 | 30413 | 2.37 | 1.0E-128 | AB040892.1 | NT | Homo sapiens mRNA for KIAA1469 protein, partial cds |
| 4395 | 17538 | 30517 | 2.32 | 1.0E-128 | AW765264.1 | EST_HUMAN | GMVA5 Human cardiac muscle expression library Homo sapiens cDNA clone 4151935 similar to GMVA5 Cardiomyopathy associated gene 5 |

Page 478 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 4395 | 17538 | 30518 | 2.32 | 1.0E-129 | AW765254.1 | EST_HUMAN | CMYA5 Human cardiac muscle expression library Homo sapiens cDNA clone 4161835 similar to CMYA5 |
| 6216 | 19391 | 32739 | 3.77 | 1.0E-129 | AJ008345.1 | NT | Cardiomyopathy associated gene 5 |
| 6654 | 19813 | 33201 | 0.81 | 1.0E-129 | BE88934.1 | EST_HUMAN | Homo sapiens KVLQ11 gene |
| 7277 | 20360 | 33814 | 3.89 | 1.0E-129 | AJ008345.1 | NT | 601513861F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3916350 5' |
| 7340 | 20420 | 33882 | 4.03 | 1.0E-129 | 11420850 | NT | Homo sapiens KVLQ11 gene |
| 7697 | 20762 | 34245 | 1.04 | 1.0E-129 | AF041056.1 | NT | Homo sapiens similar to ribosomal protein S26 (H. sapiens) (LOC83694), mRNA |
| 7697 | 20762 | 34246 | 1.04 | 1.0E-129 | AF041056.1 | NT | Homo sapiens WSCR4 gene, exons 3 and 4 |
| 8513 | 21594 | 35920 | 3.57 | 1.0E-129 | AB014834.1 | NT | Homo sapiens WSCR4 gene, exons 3 and 4 |
| 10284 | 23319 | 36920 | 1.03 | 1.0E-129 | 11437282 | NT | Homo sapiens mRNA for KIAA0834 protein, partial cds |
| 10284 | 23319 | 36921 | 1.03 | 1.0E-129 | 11437282 | NT | Homo sapiens solute carrier family 21 (organic anion transporter), member 9 (SLC21A9), mRNA |
| 10730 | 23763 | 37370 | 0.52 | 1.0E-129 | AI198117.1 | EST_HUMAN | Homo sapiens solute carrier family 21 (organic anion transporter), member 9 (SLC21A9), mRNA |
| 10730 | 23763 | 37371 | 0.62 | 1.0E-129 | AI198117.1 | EST_HUMAN | q140408.x1 NCL CGAP_Bm25 Homo sapiens cDNA clone IMAGE:1858959 3' similar to TR:Q14840 Q14840 |
| 11497 | 24556 | 38230 | 3.32 | 1.0E-129 | AA62528.1 | EST_HUMAN | MITOGEN INDUCIBLE GENE MIG-2; |
| 11578 | 20420 | 33882 | 5.01 | 1.0E-129 | 11420850 | NT | q140408.x1 NCL CGAP_Bm25 Homo sapiens cDNA clone IMAGE:1858959 3' similar to TR:Q14840 Q14840 |
| 12387 | 25273 | | 4.28 | 1.0E-129 | H83155.1 | EST_HUMAN | MITOGEN INDUCIBLE GENE MIG-2; |
| 12817 | 25544 | | 1.97 | 1.0E-129 | AL120739.1 | EST_HUMAN | q140408.x1 NCL CGAP_Bm25 Homo sapiens cDNA clone IMAGE:1858959 3' similar to TR:Q14840 Q14840 |
| 78 | 13314 | 26341 | 1.01 | 1.0E-130 | 7705530 | NT | MITOGEN INDUCIBLE GENE MIG-2; |
| 1197 | 14359 | 27418 | 0.84 | 1.0E-130 | AB037835.1 | NT | af7207.r1 Scarses NIHMPU_ST Homo sapiens cDNA clone IMAGE:1047589 5' |
| 1700 | 14852 | 27939 | 22.97 | 1.0E-130 | BE275192.1 | EST_HUMAN | Homo sapiens similar to ribosomal protein S26 (H. sapiens) (LOC83694), mRNA |
| 1700 | 14852 | 27940 | 22.97 | 1.0E-130 | BE275192.1 | EST_HUMAN | Y949c05.r1 Scarses fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:199112 5' similar to |
| 2040 | 15181 | | 2.63 | 1.0E-130 | X04092.1 | NT | SP-B-48150 B48150 HP-25-HIBERNATION-RELATED PROTEIN - TAMIAS ASIATICUS-ASIAN; |
| 2830 | 16944 | | 7.23 | 1.0E-130 | AJ010230.1 | NT | DKFZp782K171_r1 782 (synonym: hmel2) Homo sapiens cDNA clone DKFZp782K171 6' |
| 2943 | 16120 | 28132 | 1.36 | 1.0E-130 | BE664219.1 | EST_HUMAN | Homo sapiens hypothetical protein (HSPC242), mRNA |
| 2943 | 16120 | 28133 | 1.36 | 1.0E-130 | BE664219.1 | EST_HUMAN | Homo sapiens mRNA for KIAA1414 protein, partial cds |
| 3658 | 16831 | 29842 | 1.03 | 1.0E-130 | AF240699.1 | NT | 601121895F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3348366 5' |
| 3664 | 16120 | 29132 | 6.31 | 1.0E-130 | BE664219.1 | EST_HUMAN | 601121895F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3348366 5' |
| 3664 | 16120 | 29133 | 6.31 | 1.0E-130 | BE664219.1 | EST_HUMAN | 601121895F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3348366 5' |
| 4047 | 17203 | 30213 | 1.8 | 1.0E-130 | AW503580.1 | EST_HUMAN | Homo sapiens retinol dehydrogenase homolog isoform-1 (RDH) mRNA, complete cds |
| 4184 | 17334 | 30326 | 0.91 | 1.0E-130 | M97710.1 | NT | 601343016F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3685466 5' |
| 4660 | 17789 | 30782 | 9.77 | 1.0E-130 | AW843993.1 | EST_HUMAN | 601343016F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3685466 5' |

Page 479 of 550
Table 4
Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 5208 | 18329 | 31300 | 1.49 | 1.0E-130 | AW363298.1 | EST_HUMAN | RCO-CT0318-201189-031-a11 CT0318 Homo sapiens cDNA |
| 5208 | 18329 | 31301 | 1.49 | 1.0E-130 | AW363298.1 | EST_HUMAN | RCO-CT0318-201189-031-a11 CT0318 Homo sapiens cDNA |
| 6960 | 20188 | 33612 | 1.03 | 1.0E-130 | AW843875.1 | EST_HUMAN | CMO-CN0045-170200-226-g03 CN0045 Homo sapiens cDNA |
| 6960 | 20188 | 33613 | 1.03 | 1.0E-130 | AW843875.1 | EST_HUMAN | CMO-CN0045-170200-226-g03 CN0045 Homo sapiens cDNA |
| 6976 | 20203 | 33630 | 0.85 | 1.0E-130 | 11425446 | NT | Homo sapiens estrogen-responsive B box protein (EBBP), mRNA |
| 7404 | 20482 | 33949 | 1.85 | 1.0E-130 | 11416777 | NT | Homo sapiens solute carrier family 6 (neurotransmitter transporter, L-proline), member 7 (SLC6A7), mRNA |
| 7506 | 20580 | 34052 | 0.63 | 1.0E-130 | AF257737.1 | NT | Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds |
| 7608 | 20580 | 34053 | 0.63 | 1.0E-130 | AF257737.1 | NT | Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds |
| 8881 | 21660 | | 0.53 | 1.0E-130 | AF008551.1 | NT | Homo sapiens aurora-related kinase 1 (ARK1) mRNA, complete cds |
| 8019 | 22098 | 35638 | 2.06 | 1.0E-130 | AW956242.1 | EST_HUMAN | EST368312 MAGE resequencing, MAGD Homo sapiens cDNA |
| 9415 | 22489 | 36054 | 1.82 | 1.0E-130 | AB037758.1 | NT | Homo sapiens mRNA for KIAA1335 protein, partial cds |
| 10137 | 23175 | | 0.63 | 1.0E-130 | AW103454.1 | EST_HUMAN | z636a06.x1 NCI_CGAP_OV23 Homo sapiens cDNA clone IMAGE:2595874.3' |
| 4 | 13243 | 26243 | 2.52 | 0.0E+00 | AA228126.1 | EST_HUMAN | z68c04.r1 Soares_NHIMPu_S1 Homo sapiens cDNA clone IMAGE:667590 5' similar to TR:G222811 |
| 4 | 13243 | 26244 | 2.52 | 0.0E+00 | AA228126.1 | EST_HUMAN | G222811 ALPHA 1 CHAIN OF TYPE XII COLLAGEN ; |
| 8 | 13246 | 26248 | 1.14 | 0.0E+00 | 4885136 | NT | G222811 ALPHA 1 CHAIN OF TYPE XII COLLAGEN ; |
| 18 | 13264 | 26254 | 3.34 | 0.0E+00 | 8923349 | NT | Homo sapiens checkpoint suppressor 1 (CHEST), mRNA |
| 18 | 13264 | 26255 | 3.34 | 0.0E+00 | 8923349 | NT | Homo sapiens hypothetical protein FLJ20371 (FLJ20371), mRNA |
| 23 | 13261 | 26262 | 3.17 | 0.0E+00 | D83327.1 | NT | Homo sapiens hypothetical protein FLJ20371 (FLJ20371), mRNA |
| 23 | 13261 | 26263 | 3.17 | 0.0E+00 | D83327.1 | NT | Homo sapiens DCRR1 mRNA, partial cds |
| 27 | 13265 | 26267 | 0.62 | 0.0E+00 | AF141349.1 | NT | Homo sapiens DCRR1 mRNA, partial cds |
| 35 | 13273 | 26277 | 0.62 | 0.0E+00 | 6802097 | NT | Homo sapiens beta-tubulin mRNA, complete cds |
| 37 | 13276 | 26280 | 0.89 | 0.0E+00 | M58800.1 | NT | Homo sapiens Cdc42 effector protein 2 (CEP2), mRNA |
| 41 | 13279 | 26285 | 4.6 | 0.0E+00 | 6857825 | NT | Human heparin cofactor II (HCF2) gene, exons 1 through 6 |
| 58 | 13286 | 26312 | 1.77 | 0.0E+00 | Y17151.2 | NT | Homo sapiens RNA-binding protein S1, serine-rich domain (RNPS1), mRNA |
| 58 | 13288 | 26313 | 1.77 | 0.0E+00 | Y17151.2 | NT | Homo sapiens mRNA for multidrug resistance protein 3 (ABCC3) |
| 60 | 13298 | 26317 | 1.45 | 0.0E+00 | D78804.1 | EST_HUMAN | Homo sapiens mRNA for multidrug resistance protein 3 (ABCC3) |
| 60 | 13298 | 26318 | 1.45 | 0.0E+00 | D78804.1 | EST_HUMAN | HUM516H08B Human placenta polyA+ (TFujivara) Homo sapiens cDNA clone GEN-516H08 5' |
| 61 | 13299 | 26319 | 9.89 | 0.0E+00 | L16555.1 | NT | HUM516H08B Human placenta polyA+ (TFujivara) Homo sapiens cDNA clone GEN-516H08 5' |
| 63 | 13301 | 26322 | 16.36 | 0.0E+00 | AW069534.1 | EST_HUMAN | Human ribosomal protein L7 (RPL7) mRNA, complete cds |
| 63 | 13301 | 26323 | 16.36 | 0.0E+00 | AW069534.1 | EST_HUMAN | cr48e07.x1 Jila bone marrow stroma Homo sapiens cDNA clone HBMSC_cr48e07 3' |
| 67 | 13304 | 26327 | 2.48 | 0.0E+00 | M50576.1 | NT | cr48e07.x1 Jila bone marrow stroma Homo sapiens cDNA clone HBMSC_cr48e07 3' |
| | | | | | | | Human von Willebrand factor pseudogene corresponding to exons 23 through 34 |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 69 | 13308 | | 23.72 | 0.0E+00 | M60676.1 | NT | Human von Willebrand factor pseudogene corresponding to exons 23 through 34 |
| 77 | 13313 | 26339 | 2.1 | 0.0E+00 | 4758977 | NT | Homo sapiens protein tyrosine phosphatase, non-receptor type substrate 1 (PTPNS1) mRNA |
| 77 | 13313 | 26340 | 2.1 | 0.0E+00 | 4758977 | NT | Homo sapiens protein tyrosine phosphatase, non-receptor type substrate 1 (PTPNS1) mRNA |
| 80 | 13313 | 26339 | 1.06 | 0.0E+00 | 4758977 | NT | Homo sapiens protein tyrosine phosphatase, non-receptor type substrate 1 (PTPNS1) mRNA |
| 80 | 13313 | 26340 | 1.08 | 0.0E+00 | 4758977 | NT | Homo sapiens protein tyrosine phosphatase, non-receptor type substrate 1 (PTPNS1) mRNA |
| 83 | 13318 | 26346 | 0.62 | 0.0E+00 | AA963770.1 | EST_HUMAN | SW:TMOD_HUMAN P28289 TROPOMODULIN ; |
| 84 | 13319 | 26347 | 16.99 | 0.0E+00 | 4501850 | NT | Homo sapiens amiloride binding protein 1 (antine oxidase (copper-containing)) (ABP1), nuclear gene encoding mitochondrial protein, mRNA |
| 85 | 13320 | | 12.3 | 0.0E+00 | 4504444 | NT | Homo sapiens heterogeneous nuclear ribonucleoprotein A1 (HNRPA1) mRNA |
| 94 | 13326 | 26356 | 23.92 | 0.0E+00 | 5016088 | NT | Homo sapiens actin, beta (ACTB) mRNA |
| 97 | 13332 | 26358 | 40.86 | 0.0E+00 | U89277.1 | NT | Human polyhomeotic 1 homolog (HPH1) mRNA, partial cds |
| 103 | 13339 | 26366 | 2.4 | 0.0E+00 | A1114743.1 | EST_HUMAN | HA1347 Human fetal liver cDNA library Homo sapiens cDNA |
| 104 | 13340 | 26367 | 0.9 | 0.0E+00 | AB037784.1 | NT | Homo sapiens mRNA for KIAA1363 protein, partial cds |
| 110 | 13343 | 26371 | 0.68 | 0.0E+00 | X91213.1 | NT | H. sapiens ncx1 gene (exon 2) |
| 118 | 13350 | 26377 | 0.88 | 0.0E+00 | A1623701.1 | EST_HUMAN | ts38b05.x1 NCL_CGAP_U14 Homo sapiens cDNA clone IMAGE:2230833 3' similar to TR:Q08651 Q08551 MITOCHONDRIAL TRANSCRIPTION TERMINATION FACTOR PRECURSOR. ; |
| 119 | 13350 | 26377 | 1.68 | 0.0E+00 | A1623701.1 | EST_HUMAN | ts38b05.x1 NCL_CGAP_U14 Homo sapiens cDNA clone IMAGE:2230833 3' similar to TR:Q08651 Q08551 MITOCHONDRIAL TRANSCRIPTION TERMINATION FACTOR PRECURSOR. ; |
| 120 | 15980 | 26378 | 1.92 | 0.0E+00 | N36040.1 | EST_HUMAN | Y01109.11 Soares melanocyte 2Nblm Homo sapiens cDNA clone IMAGE:270017 5' |
| 120 | 15980 | 26379 | 1.92 | 0.0E+00 | N36040.1 | EST_HUMAN | Y01109.11 Soares melanocyte 2Nblm Homo sapiens cDNA clone IMAGE:270017 5' |
| 123 | 13353 | 26384 | 1.63 | 0.0E+00 | 4503456 | NT | Homo sapiens neuropilin 2 (NRP2) mRNA |
| 133 | 13359 | 26392 | 3.65 | 0.0E+00 | 4503938 | NT | Homo sapiens polymerase (RNA) II (DNA directed) polypeptide A (220kd) (POLR2A) mRNA |
| 133 | 13359 | 26393 | 3.66 | 0.0E+00 | 4503938 | NT | Homo sapiens polymerase (RNA) II (DNA directed) polypeptide A (220kd) (POLR2A) mRNA |
| 141 | 13609 | 26647 | 1.9 | 0.0E+00 | 4503680 | NT | Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA |
| 143 | 13367 | 26400 | 0.7 | 0.0E+00 | T56945.1 | EST_HUMAN | Y483g04.i2 Stratagene fetal spleen (#937205) Homo sapiens cDNA clone IMAGE:68310 5' |
| 143 | 13367 | 26401 | 0.7 | 0.0E+00 | T56945.1 | EST_HUMAN | Y483g04.i2 Stratagene fetal spleen (#937205) Homo sapiens cDNA clone IMAGE:68310 5' |
| 157 | 13382 | | 12.8 | 0.0E+00 | 4504444 | NT | Homo sapiens heterogeneous nuclear ribonucleoprotein A1 (HNRPA1) mRNA |
| 161 | 13386 | 26416 | 2.06 | 0.0E+00 | BF036881.1 | EST_HUMAN | 601460376F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3663803 5' |
| 163 | 13388 | | 98.39 | 0.0E+00 | 4504444 | NT | Homo sapiens heterogeneous nuclear ribonucleoprotein A1 (HNRPA1) mRNA |
| 168 | 13397 | 26419 | 12.6 | 0.0E+00 | AF111168.2 | NT | Homo sapiens carboxy palmityl transferase, subunit II gene, complete cds; and unknown genes |
| 168 | 13397 | 26420 | 1.03 | 0.0E+00 | BE295973.1 | EST_HUMAN | 601174270F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3628864 5' |
| 169 | 13393 | 26420 | 0.79 | 0.0E+00 | BE295973.1 | EST_HUMAN | 601174270F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3628864 5' |

Page 481 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 170 | 13394 | 28421 | 2.4 | 0.0E+00 | W73973.1 | EST_HUMAN | z66205.r1 Soares_fetal_heart_NH119W Homo sapiens cDNA clone IMAGE:346201 5' similar to gb:X16282_cds1 ZINC FINGER PROTEIN CLONE 947 (HUMAN); |
| 171 | 13395 | 28422 | 0.78 | 0.0E+00 | BE162832.1 | EST_HUMAN | QV3-HT0457-140200-088-d04 HT0457 Homo sapiens cDNA |
| 171 | 13395 | 28423 | 0.79 | 0.0E+00 | BE162832.1 | EST_HUMAN | QV3-HT0457-140200-088-d04 HT0457 Homo sapiens cDNA |
| 172 | 13398 | 28424 | 4.73 | 0.0E+00 | AF244088.1 | NT | Homo sapiens zinc finger protein mRNA, complete cds |
| 175 | 13399 | 28427 | 26.75 | 0.0E+00 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 175 | 13399 | 28428 | 26.75 | 0.0E+00 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 185 | 13407 | 28435 | 6.75 | 0.0E+00 | BE018970.1 | EST_HUMAN | b024612.y1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:2863854 5' similar to WP:Y57A10A.Z CE22831; |
| 185 | 13407 | 28435 | 6.75 | 0.0E+00 | BE018970.1 | EST_HUMAN | b024612.y1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:2863854 5' similar to WP:Y57A10A.Z CE22831; |
| 185 | 13407 | 28438 | 6.75 | 0.0E+00 | BE018970.1 | EST_HUMAN | Homo sapiens mRNA for KIAA0784 protein, partial cds |
| 190 | 13412 | 28439 | 2.4 | 0.0E+00 | AB018327.1 | NT | Homo sapiens mRNA for KIAA0784 protein, partial cds |
| 190 | 13412 | 28440 | 2.4 | 0.0E+00 | AB018327.1 | NT | Homo sapiens mRNA for KIAA0784 protein, partial cds |
| 191 | 13413 | 28441 | 1.66 | 0.0E+00 | AB018327.1 | NT | Homo sapiens mRNA for KIAA0784 protein, partial cds |
| 191 | 13413 | 28442 | 1.88 | 0.0E+00 | AB018327.1 | NT | Human gamma-cytoplasmic actin (ACTGP8) pseudogene |
| 198 | 13422 | 28453 | 57.89 | 0.0E+00 | D50859.1 | NT | Homo sapiens CTCL tumor antigen set4-3 mRNA, complete cds |
| 204 | 13427 | 28458 | 3.13 | 0.0E+00 | AF273045.1 | NT | Homo sapiens CTCL tumor antigen set4-3 mRNA, complete cds |
| 204 | 13427 | 28459 | 3.13 | 0.0E+00 | AF273045.1 | NT | Homo sapiens CTCL tumor antigen set4-3 mRNA, complete cds |
| 206 | 13428 | 28461 | 7.71 | 0.0E+00 | AF167174.1 | NT | Homo sapiens chromosome XMSL3-2 protein mRNA, complete cds |
| 206 | 13428 | 28462 | 7.71 | 0.0E+00 | AF167174.1 | NT | Homo sapiens chromosome XMSL3-2 protein mRNA, complete cds |
| 216 | 16007 | 28469 | 12 | 0.0E+00 | AI567308.1 | EST_HUMAN | tp04808.x1 NCI_GGAP_U13 Homo sapiens cDNA clone IMAGE:2207847 3' similar to gb:J03191 PROFILIN1 (HUMAN); |
| 216 | 16007 | 28470 | 12 | 0.0E+00 | AI567308.1 | EST_HUMAN | tp04808.x1 NCI_GGAP_U13 Homo sapiens cDNA clone IMAGE:2207847 3' similar to gb:J03191 PROFILIN1 (HUMAN); |
| 218 | 13440 | 28472 | 1.93 | 0.0E+00 | AF196658.1 | NT | Homo sapiens DNA mismatch repair protein (MLH3) gene, complete cds |
| 221 | 13443 | | 11.48 | 0.0E+00 | 4506632 | NT | Homo sapiens ribosomal protein L31 (RPL31) mRNA |
| 222 | 13444 | | 6.53 | 0.0E+00 | AF132000.1 | NT | Homo sapiens TADA1 protein mRNA, complete cds |
| 228 | 13450 | 28478 | 1.48 | 0.0E+00 | AB018264.1 | NT | Homo sapiens mRNA for KIAA0721 protein, partial cds |
| 229 | 13450 | 28478 | 1.34 | 0.0E+00 | AB018264.1 | NT | Homo sapiens mRNA for KIAA0721 protein, partial cds |
| 230 | 13451 | 28479 | 2.02 | 0.0E+00 | 6878444 | NT | Mus musculus testis-specific protein, Y-encoded-like (Tspyl), mRNA |
| 237 | 13459 | 28483 | 0.89 | 0.0E+00 | BE246780.1 | EST_HUMAN | TCBAP1E4466 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP4468 |
| 237 | 13459 | 28484 | 0.89 | 0.0E+00 | BE246780.1 | EST_HUMAN | TCBAP1E4466 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP4468 |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal: | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|-----------------------|---|--------------------------|-------------------------------|---|
| 237 | 13459 | 28485 | 0.89 | 0.0E+00 | BE246780.1 | EST_HUMAN | TCBAP1E4486 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBAP Homo sapiens cDNA clone TCBAP4468 |
| 245 | 13467 | 28498 | 1.17 | 0.0E+00 | AB018301.1 | NT | Homo sapiens mRNA for KIAA0758 protein, partial cds |
| 245 | 13467 | 28497 | 1.17 | 0.0E+00 | AB018301.1 | NT | Homo sapiens mRNA for KIAA0758 protein, partial cds |
| 248 | 13469 | 28501 | 7.54 | 0.0E+00 | 5453805 | NT | Homo sapiens NS1-associated protein 1 (NSAP1) mRNA |
| 250 | 13471 | | 3.79 | 0.0E+00 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 257 | 13476 | 28507 | 4.65 | 0.0E+00 | AF231918.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 259 | 13478 | 28510 | 1.22 | 0.0E+00 | X89772.1 | NT | H sapiens mRNA for Interferon alpha/beta receptor (long form) |
| 267 | 13488 | | 5.95 | 0.0E+00 | AF231918.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 280 | 13498 | 28529 | 1.37 | 0.0E+00 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 280 | 13498 | 28530 | 1.37 | 0.0E+00 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 282 | 13500 | 28532 | 1.9 | 0.0E+00 | 7709028 | NT | Homo sapiens hypothetical protein (LOC61260), mRNA |
| 293 | 13510 | | 0.96 | 0.0E+00 | D83327.1 | NT | Homo sapiens DCRR1 mRNA, partial cds |
| 294 | 13511 | 28545 | 1.2 | 0.0E+00 | D83327.1 | NT | Homo sapiens DCRR1 mRNA, partial cds |
| 294 | 13511 | 28546 | 1.2 | 0.0E+00 | D83327.1 | NT | Homo sapiens DCRR1 mRNA, partial cds |
| 295 | 13512 | | 1.41 | 0.0E+00 | AW845283.1 | EST_HUMAN | IL2-CT0031-181169-020-803 CT0031 Homo sapiens cDNA |
| 304 | 13520 | 28553 | 5.85 | 0.0E+00 | 4557029 | NT | Homo sapiens potassium inwardly-rectifying channel, subfamily J, member 15 (KCNJ16) mRNA |
| 304 | 13520 | 28554 | 5.66 | 0.0E+00 | 4557029 | NT | Homo sapiens potassium inwardly-rectifying channel, subfamily J, member 15 (KCNJ16) mRNA |
| 315 | 13531 | 28584 | 6.18 | 0.0E+00 | AB028942.1 | NT | Homo sapiens mRNA for KIAA1018 protein, partial cds |
| 316 | 13532 | 28585 | 4.28 | 0.0E+00 | AB028942.1 | NT | Homo sapiens mRNA for KIAA1018 protein, partial cds |
| 317 | 16010 | | 8.13 | 0.0E+00 | 4508728 | NT | Homo sapiens ribosomal protein S5 (RP55) mRNA |
| 318 | 13533 | | 1.42 | 0.0E+00 | AA480002.1 | EST_HUMAN | zr18cd08.r1 Scarsa_NhlMPu_S1 Homo sapiens cDNA clone IMAGE:763894 5' |
| 319 | 13534 | 28566 | 19.66 | 0.0E+00 | 4507152 | NT | Homo sapiens SON DNA binding protein (SON) mRNA |
| 320 | 13534 | 28566 | 24.65 | 0.0E+00 | 4507152 | NT | Homo sapiens SON DNA binding protein (SON) mRNA |
| 324 | 13538 | 28570 | 1.59 | 0.0E+00 | AF114488.1 | NT | Homo sapiens Intersectin short isoform (ITSN), complete cds |
| 337 | 13550 | 28579 | 1.15 | 0.0E+00 | O14867 | SWISSPROT | TRANSCRIPTION REGULATOR PROTEIN BACH1 (BTB AND CNC HOMOLOG 1) (HA2303) |
| 337 | 13550 | 28580 | 1.15 | 0.0E+00 | O14867 | SWISSPROT | TRANSCRIPTION REGULATOR PROTEIN BACH1 (BTB AND CNC HOMOLOG 1) (HA2303) |
| 338 | 13551 | 28581 | 4.14 | 0.0E+00 | 7657213 | NT | Homo sapiens hormonally upregulated non tumor-associated kinase (HUNK), mRNA |
| 339 | 13551 | 28581 | 1.82 | 0.0E+00 | 7657213 | NT | Homo sapiens hormonally upregulated non tumor-associated kinase (HUNK), mRNA |
| 354 | 13595 | 28393 | 4.38 | 0.0E+00 | 5174574 | NT | Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 4 (MLLT4) mRNA |
| 355 | 13586 | 28584 | 0.74 | 0.0E+00 | 4505266 | NT | Homo sapiens moesin (MSN), mRNA |
| 358 | 13589 | 28598 | 4.58 | 0.0E+00 | 4827057 | NT | Homo sapiens X-box binding protein 1 (XBP-1) mRNA |
| 361 | 13572 | 28603 | 0.96 | 0.0E+00 | U71600.1 | NT | Human zinc finger protein zfp31 (zfp31) mRNA, partial cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|-----------------------------|-------------------------------|---|
| 366 | 13576 | 26607 | 2.75 | 0.0E+00 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 366 | 13576 | 26608 | 2.75 | 0.0E+00 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 367 | 10011 | 26609 | 2.53 | 0.0E+00 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 369 | 13578 | 26611 | 1.01 | 0.0E+00 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 372 | 13581 | 26616 | 1.59 | 0.0E+00 | 4503854 | NT | Homo sapiens GA-binding protein transcription factor, alpha subunit (GABPA), mRNA |
| 373 | 13582 | 26616 | 2 | 0.0E+00 | D80006.1 | NT | Human mRNA for KIAA0184 gene, partial cds |
| 374 | 13582 | 26616 | 1.43 | 0.0E+00 | D80006.1 | NT | Human mRNA for KIAA0184 gene, partial cds |
| 376 | 13584 | 26618 | 0.93 | 0.0E+00 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 387 | 13593 | 26629 | 3.37 | 0.0E+00 | AU134963.1 | EST_HUMAN | AU134963 PLACE1 Homo sapiens cDNA clone PLACE1000899 5' |
| 398 | 13635 | 26673 | 7.56 | 0.0E+00 | AB028942.1 | NT | Homo sapiens mRNA for KIAA1019 protein, partial cds |
| 399 | 13636 | 26674 | 1.08 | 0.0E+00 | AI363014.1 | EST_HUMAN | qy8105.x1 NCL CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2018457 3' similar to gb.X34199 |
| 404 | 13601 | 26636 | 1.32 | 0.0E+00 | AW754180.1 | EST_HUMAN | PHOSPHORIBOSYLAMINE-GLYCINE LIGASE (HUMAN); |
| 407 | 13603 | 26639 | 2.24 | 0.0E+00 | 4503680 | NT | RC2-CT0320-300100-016-009 CT0320 Homo sapiens cDNA |
| 408 | 13604 | 26640 | 2.34 | 0.0E+00 | 4503680 | NT | Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA |
| 408 | 13604 | 26641 | 2.34 | 0.0E+00 | 4503680 | NT | Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA |
| 409 | 13605 | 26642 | 2.18 | 0.0E+00 | 4503680 | NT | Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA |
| 410 | 13606 | 26643 | 1.42 | 0.0E+00 | 4503680 | NT | Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA |
| 410 | 13606 | 26644 | 1.42 | 0.0E+00 | 4503680 | NT | Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA |
| 411 | 13607 | 26645 | 1.98 | 0.0E+00 | 4503680 | NT | Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA |
| 412 | 13608 | 26646 | 2.55 | 0.0E+00 | 4503680 | NT | Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA |
| 413 | 13609 | 26647 | 2.14 | 0.0E+00 | 4503680 | NT | Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA |
| 414 | 13610 | 26648 | 0.96 | 0.0E+00 | X74870.1 | NT | H. sapiens gene for RNA pol II largest subunit, exons 23-29 |
| 414 | 13610 | 26649 | 0.96 | 0.0E+00 | X74870.1 | NT | H. sapiens gene for RNA pol II largest subunit, exons 23-29 |
| 415 | 13610 | 26648 | 1.07 | 0.0E+00 | X74870.1 | NT | H. sapiens gene for RNA pol II largest subunit, exons 23-29 |
| 415 | 13610 | 26649 | 1.07 | 0.0E+00 | X74870.1 | NT | H. sapiens gene for RNA pol II largest subunit, exons 23-29 |
| 419 | 13614 | | 18.46 | 0.0E+00 | 4506608 | NT | Homo sapiens ribosomal protein L19 (RPL19) mRNA |
| 433 | 13233 | 26233 | 1.48 | 0.0E+00 | R17705.1 | EST_HUMAN | yg09a02.r1 Soerae Infant brain 1N1B Homo sapiens cDNA clone IMAGE:31652 5' |
| 441 | 13637 | 26675 | 1.39 | 0.0E+00 | 4503914 | NT | Homo sapiens phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide synthetase, (GART) mRNA |
| 442 | 13638 | | 3.85 | 0.0E+00 | 4506728 | NT | Homo sapiens ribosomal protein S5 (RP55) mRNA |
| 443 | 13639 | 26676 | 2.82 | 0.0E+00 | AB028942.1 | NT | Homo sapiens mRNA for KIAA1019 protein, partial cds |
| 444 | 13640 | 26677 | 17.7 | 0.0E+00 | 4507152 | NT | Homo sapiens SON DNA binding protein (SON) mRNA |
| 444 | 13640 | 26678 | 17.7 | 0.0E+00 | 4507152 | NT | Homo sapiens SON DNA binding protein (SON) mRNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 445 | 13941 | 26679 | 4.23 | 0.0E+00 | AF193607.1 | NT | Mus musculus truncated SON protein (Son) mRNA, complete cds |
| 457 | 13952 | | 1.45 | 0.0E+00 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 459 | 13954 | 26692 | 4.44 | 0.0E+00 | 4557879 | NT | Homo sapiens interferon gamma receptor 1 (IFNGR1) mRNA |
| 464 | 13959 | | 0.75 | 0.0E+00 | BE264447.1 | EST_HUMAN | 60111520F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3352348 5' |
| 480 | 13975 | 26706 | 3.38 | 0.0E+00 | 4504532 | NT | Homo sapiens 5-hydroxytryptamine (serotonin) receptor 1B (HTR1B) mRNA |
| 480 | 13975 | 26707 | 3.38 | 0.0E+00 | 4504532 | NT | Homo sapiens 5-hydroxytryptamine (serotonin) receptor 1B (HTR1B) mRNA |
| 486 | 13980 | 26715 | 21.77 | 0.0E+00 | 4557887 | NT | Homo sapiens keratin 18 (KRT18) mRNA |
| 486 | 13980 | 26716 | 21.77 | 0.0E+00 | 4557887 | NT | Homo sapiens keratin 18 (KRT18) mRNA |
| 486 | 13981 | 26722 | 4.1 | 0.0E+00 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 487 | 13982 | 26723 | 5.9 | 0.0E+00 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 497 | 13982 | 26724 | 5.9 | 0.0E+00 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 497 | 13982 | 26724 | 5.9 | 0.0E+00 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 509 | 13700 | 26729 | 4.25 | 0.0E+00 | AB033035.1 | NT | Homo sapiens mRNA for KIAA1209 protein, partial cds |
| 508 | 13702 | 26731 | 1.81 | 0.0E+00 | AU132898.1 | EST_HUMAN | AU132898 NT2RP4 Homo sapiens cDNA clone NT2RP4000837 5' |
| 616 | 13710 | 26737 | 1.66 | 0.0E+00 | BE385144.1 | EST_HUMAN | 601274951F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3616758 5' |
| 617 | 16014 | 26738 | 1.7 | 0.0E+00 | AW938628.1 | EST_HUMAN | PM0-DT0065-130400-002-c06 DT0065 Homo sapiens cDNA |
| 620 | 13713 | 26740 | 1.82 | 0.0E+00 | AL117233.1 | NT | Novel human gene mapping to chromosome 1 |
| 621 | 13714 | 26741 | 0.95 | 0.0E+00 | | NT | Homo sapiens PC326 protein (PC326) mRNA |
| 625 | 13718 | | 1.9 | 0.0E+00 | BF373403.1 | EST_HUMAN | IL2-FT0169-070800-120-F07 FT0159 Homo sapiens cDNA |
| 632 | 13725 | 26751 | 4.43 | 0.0E+00 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 639 | 16015 | 26755 | 1.57 | 0.0E+00 | BE081627.1 | EST_HUMAN | QV2-BT0635-160400-142-h05 BT0635 Homo sapiens cDNA |
| 544 | 13737 | 26761 | 1.15 | 0.0E+00 | BF028005.1 | EST_HUMAN | 601784858F1 NIH_MGC_43 Homo sapiens cDNA clone IMAGE:3686988 5' |
| 550 | 13743 | 26768 | 1.57 | 0.0E+00 | AB040909.1 | NT | Homo sapiens mRNA for KIAA1478 protein, partial cds |
| 553 | 13746 | 26771 | 8.39 | 0.0E+00 | 6006030 | NT | Homo sapiens transcription elongation factor B (SIII), polypeptide 1-like (TOEB1L) mRNA |
| 564 | 13747 | 26772 | 4.53 | 0.0E+00 | 4504036 | NT | Homo sapiens guanine nucleotide binding protein (G protein), alpha 11 (Gq class) (GNA11) mRNA |
| 554 | 13747 | 26773 | 4.53 | 0.0E+00 | 4504036 | NT | Homo sapiens guanine nucleotide binding protein (G protein), alpha 11 (Gq class) (GNA11) mRNA |
| 554 | 13747 | 26775 | 0.73 | 0.0E+00 | 8923831 | NT | Homo sapiens anillin (LOC54443) mRNA |
| 556 | 13748 | 26776 | 0.63 | 0.0E+00 | 8923831 | NT | Homo sapiens anillin (LOC54443) mRNA |
| 557 | 13750 | 26776 | 0.63 | 0.0E+00 | 8923831 | NT | Homo sapiens anillin (LOC54443) mRNA |
| 557 | 13750 | 26777 | 0.63 | 0.0E+00 | 8923831 | NT | Homo sapiens X-linked anhidrotic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 562 | 13754 | | 4.82 | 0.0E+00 | AF003528.1 | NT | UH-B1-ach-h-04-0-UJ.s1 NCJ_QGAP_Sub3 Homo sapiens cDNA clone IMAGE:2713981 3' |
| 570 | 13762 | 26786 | 1.39 | 0.0E+00 | AW135324.1 | EST_HUMAN | Homo sapiens RGH1 gene, retrovirus-like element |
| 580 | 13772 | | 6.31 | 0.0E+00 | D10083.1 | NT | Homo sapiens ubiquinol-cytochrome c reductase, Rieske iron-sulfur polypeptide 1 (UQCRCF1), nuclear gene, encoding mitochondrial protein, mRNA |
| 598 | 13789 | 26810 | 1.85 | 0.0E+00 | 5174742 | NT | |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 612 | 13801 | | 7.14 | 0.0E+00 | J04066.1 | NT | Human apolipoprotein A-I (ApoA-I) gene, exon 1 |
| 615 | 13804 | 26824 | 1.87 | 0.0E+00 | BF104898.1 | EST_HUMAN | 601822627F1 NIH_MGC_75 Homo sapiens cDNA clone IMAGE:4048447 6' |
| 617 | 13806 | 26826 | 0.95 | 0.0E+00 | 8923631 | NT | Homo sapiens hypothetical protein FLJ20701 (FLJ20701), mRNA |
| 618 | 13806 | 26827 | 0.95 | 0.0E+00 | 8923631 | NT | Homo sapiens hypothetical protein FLJ20701 (FLJ20701), mRNA |
| 618 | 13806 | 26827 | 0.77 | 0.0E+00 | 8923631 | NT | Homo sapiens hypothetical protein FLJ20701 (FLJ20701), mRNA |
| 618 | 13806 | 26827 | 0.77 | 0.0E+00 | 8923631 | NT | Homo sapiens hypothetical protein FLJ20701 (FLJ20701), mRNA |
| 619 | 13806 | 26828 | 0.72 | 0.0E+00 | 8923631 | NT | Homo sapiens hypothetical protein FLJ20701 (FLJ20701), mRNA |
| 619 | 13806 | 26827 | 0.72 | 0.0E+00 | 8923631 | NT | Homo sapiens hypothetical protein FLJ20701 (FLJ20701), mRNA |
| 624 | 13809 | 26830 | 0.64 | 0.0E+00 | 4501854 | NT | Homo sapiens acetyl-Coenzyme A carboxylase beta (ACACB), mRNA |
| 629 | 13814 | 26838 | 1.83 | 0.0E+00 | AF221712.1 | NT | Homo sapiens Smad- and Olf-interacting zinc finger protein mRNA, partial cds |
| 629 | 13814 | 26837 | 1.83 | 0.0E+00 | AF221712.1 | NT | Homo sapiens Smad- and Olf-interacting zinc finger protein mRNA, partial cds |
| 639 | 13824 | 26847 | 2.18 | 0.0E+00 | AF149773.1 | NT | Homo sapiens NOD1 protein (NOD1) gene, exons 1, 2, and 3 |
| 641 | 13826 | 26850 | 0.93 | 0.0E+00 | AB037807.1 | NT | Homo sapiens mRNA for KIAA1388 protein, partial cds |
| 643 | 13828 | 26851 | 1.89 | 0.0E+00 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 644 | 13828 | 26852 | 2.34 | 0.0E+00 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 644 | 13829 | 26853 | 2.34 | 0.0E+00 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 646 | 13830 | 26854 | 0.98 | 0.0E+00 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 646 | 13830 | 26855 | 0.98 | 0.0E+00 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 652 | 13838 | 26865 | 1.42 | 0.0E+00 | AA399488.1 | EST_HUMAN | zf60c07.f1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:728732 5' |
| 656 | 13842 | 26869 | 0.57 | 0.0E+00 | D11078.1 | NT | Homo sapiens RGH2 gene, retrovirus-like element |
| 660 | 13846 | 26872 | 4.28 | 0.0E+00 | W78811.1 | EST_HUMAN | zf51b04.f1 Soares_fetal_liver_spleen_INFL3_S1 Homo sapiens cDNA clone IMAGE:415587 5' similar to gb:A21187 ALPHA-2-MACROGLOBULIN PRECURSOR (HUMAN); |
| 660 | 13846 | 26873 | 4.28 | 0.0E+00 | W78811.1 | EST_HUMAN | zf51b04.f1 Soares_fetal_liver_spleen_INFL3_S1 Homo sapiens cDNA clone IMAGE:415587 6' similar to gb:A21187 ALPHA-2-MACROGLOBULIN PRECURSOR (HUMAN); |
| 663 | 13848 | 26875 | 3.68 | 0.0E+00 | 4885528 | NT | Homo sapiens novel SH2-containing protein 3 (NSP3) mRNA |
| 670 | 13856 | 26885 | 2.16 | 0.0E+00 | 6006003 | NT | Homo sapiens glutamate receptor, ionotropic, N-methyl D-aspartate 2B (GRIN2B) mRNA |
| 672 | 13858 | 26888 | 1.25 | 0.0E+00 | 5031624 | NT | Homo sapiens CCAAT-box-binding transcription factor (CBF2) mRNA |
| 675 | 13861 | 26892 | 1.88 | 0.0E+00 | U05235.1 | NT | Homo sapiens neutral amino acid transporter (ASCT1) gene, exon 8 |
| 679 | 13865 | 26896 | 1.07 | 0.0E+00 | AF108389.1 | NT | Homo sapiens sodium/calcium exchanger isoform NaCa3 (NCX1) mRNA, complete cds |
| 679 | 13865 | 26896 | 1.07 | 0.0E+00 | AF108389.1 | NT | Homo sapiens sodium/calcium exchanger isoform NaCa3 (NCX1) mRNA, complete cds |
| 685 | 13870 | 26901 | 5.11 | 0.0E+00 | 4826947 | NT | Homo sapiens protein kinase, X-linked (PRKX) mRNA |
| 685 | 13870 | 26902 | 5.11 | 0.0E+00 | 4826947 | NT | Homo sapiens protein kinase, X-linked (PRKX) mRNA |
| 691 | 16018 | | 1.8 | 0.0E+00 | X57147.1 | NT | Human endogenous retrovirus PHE.1 (ERV8) |
| 700 | 13883 | 26916 | 3.92 | 0.0E+00 | 4504424 | NT | Homo sapiens high-mobility group (nonhistone chromosomal) protein 1 (HMG31) mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 705 | 13888 | 26920 | 4.94 | 0.0E+00 | AB029012.1 | NT | Homo sapiens mRNA for KIAA1089 protein, partial cds |
| 716 | 13897 | 26935 | 3.83 | 0.0E+00 | 7657488 | NT | Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA np49d01.s1 NCI_CGAP_Br.1.1 Homo sapiens cDNA clone IMAGE:1129633 3' similar to gb:U57362 |
| 727 | 13908 | 26949 | 13.13 | 0.0E+00 | AA014537.1 | EST_HUMAN | INTERFERON-INDUCIBLE PROTEIN 1-8U (HUMAN); |
| 731 | 13913 | 26953 | 6.4 | 0.0E+00 | M60675.1 | NT | Human von Willebrand factor gene, exons 23 through 34 |
| 731 | 13913 | 26954 | 6.4 | 0.0E+00 | M60675.1 | NT | Human von Willebrand factor gene, exons 23 through 34 |
| 741 | 13923 | 26963 | 1.35 | 0.0E+00 | 5032192 | NT | Homo sapiens TNF receptor-associated factor 1 (TRAF1) mRNA |
| 747 | 13928 | 26969 | 4.62 | 0.0E+00 | AF264750.1 | NT | Homo sapiens ALR-like protein mRNA, partial cds |
| 747 | 13928 | 26970 | 4.62 | 0.0E+00 | AF264750.1 | NT | Homo sapiens ALR-like protein mRNA, partial cds |
| 749 | 13930 | 26973 | 9.17 | 0.0E+00 | 11545800 | NT | Homo sapiens hypodermal protein FLJ21634 (FLJ21634), mRNA |
| 755 | 13936 | 26981 | 2.26 | 0.0E+00 | BE241577.1 | EST_HUMAN | TCAAP1D0779 Pediatric acute myelogenous leukemia cell (FAB M1) Baylor-HGSC project=TCAA Homo sapiens cDNA clone TCAAP0779 |
| 776 | 13955 | 27005 | 1.19 | 0.0E+00 | AF226900.2 | NT | Homo sapiens MHC class I antigen (HLA-G) mRNA, HLA-G1 allele, complete cds |
| 776 | 13955 | 27006 | 1.19 | 0.0E+00 | AF226900.2 | NT | Homo sapiens MHC class I antigen (HLA-G) mRNA, HLA-G1 allele, complete cds |
| 778 | 13958 | 27009 | 8.92 | 0.0E+00 | J03764.1 | NT | Human, plasminogen activator inhibitor-1 gene, exons 2 to 9 |
| 778 | 13958 | 27010 | 8.92 | 0.0E+00 | J03764.1 | NT | Human, plasminogen activator inhibitor-1 gene, exons 2 to 9 |
| 781 | 13961 | 27011 | 0.99 | 0.0E+00 | AB037760.1 | NT | Homo sapiens mRNA for KIAA1339 protein, partial cds |
| 782 | 13962 | 27012 | 2.07 | 0.0E+00 | 6912749 | NT | Homo sapiens zinc finger protein 212 (ZNF212), mRNA |
| 784 | 16022 | 27014 | 2.36 | 0.0E+00 | D30612.1 | NT | Homo sapiens mRNA for repressor protein, partial cds |
| 785 | 13994 | 27015 | 3.53 | 0.0E+00 | BE669735.1 | EST_HUMAN | 601445847F1 NIH_MGC 65 Homo sapiens cDNA clone IMAGE:3849803 5' |
| 790 | 13999 | 27021 | 4.04 | 0.0E+00 | R48915.1 | EST_HUMAN | Y09008.r1 Soares breast 2NbhBst Homo sapiens cDNA clone IMAGE:154046 5' |
| 791 | 13970 | 27022 | 2.85 | 0.0E+00 | 5032086 | NT | Homo sapiens splicing factor 3a, subunit 1, 120kD (SF3A1), mRNA |
| 800 | 13979 | 27031 | 1.84 | 0.0E+00 | AB011398.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 803 | 13983 | 27035 | 3.01 | 0.0E+00 | 7661965 | NT | Homo sapiens KIAA0170 gene product (KIAA0170), mRNA |
| 815 | 13994 | 27049 | 1.24 | 0.0E+00 | D80006.1 | NT | Human mRNA for KIAA0184 gene, partial cds |
| 820 | 13999 | 27053 | 2.74 | 0.0E+00 | X69772.1 | NT | Human mRNA for KIAA0184 gene, partial cds |
| 824 | 14003 | 27057 | 3.25 | 0.0E+00 | AB020717.1 | NT | H. sapiens mRNA for interferon alpha/beta receptor (long form) |
| 824 | 14003 | 27058 | 3.25 | 0.0E+00 | AB020717.1 | NT | Homo sapiens mRNA for KIAA0910 protein, partial cds |
| 829 | 14007 | 27064 | 13.47 | 0.0E+00 | AB020717.1 | NT | Homo sapiens pericentrin (PCNT) mRNA |
| 830 | 14008 | | 11.09 | 0.0E+00 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 847 | 14025 | 27085 | 1.65 | 0.0E+00 | 7657213 | NT | Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA |
| 848 | 14026 | 27086 | 2.46 | 0.0E+00 | 7657213 | NT | Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA |
| 850 | 14028 | 27088 | 1.84 | 0.0E+00 | 4557686 | NT | Homo sapiens potassium voltage-gated channel, Isk-related family, member 1 (KCNIE1) mRNA |

Page 487 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 859 | 14033 | 27094 | 2.19 | 0.0E+00 | AF108830.1 | NT | Homo sapiens serine-threonine protein kinase (MNBH) mRNA, complete cds |
| 866 | 14033 | 27095 | 2.19 | 0.0E+00 | AF108830.1 | NT | Homo sapiens serine-threonine protein kinase (MNBH) mRNA, complete cds |
| 857 | 14034 | 27096 | 1.45 | 0.0E+00 | AF108830.1 | NT | Homo sapiens serine-threonine protein kinase (MNBH) mRNA, complete cds |
| 862 | 14039 | 27101 | 2.85 | 0.0E+00 | 4503854 | NT | Homo sapiens GA-binding protein transcription factor, alpha subunit (60kD) (GABPA), mRNA |
| 866 | 14042 | 27106 | 1.37 | 0.0E+00 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 866 | 14042 | 27107 | 1.37 | 0.0E+00 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 873 | 14049 | 27118 | 2.07 | 0.0E+00 | AF027153.1 | NT | Homo sapiens sodium/myo-inositol cotransporter (SLC5A3) gene, complete cds |
| 877 | 14053 | 27118 | 5.27 | 0.0E+00 | AB028942.1 | NT | Homo sapiens mRNA for KIAA1019 protein, partial cds |
| 877 | 14053 | 27119 | 5.27 | 0.0E+00 | AB028942.1 | NT | Homo sapiens mRNA for KIAA1019 protein, partial cds |
| 878 | 14054 | 27120 | 11.32 | 0.0E+00 | 4507152 | NT | Homo sapiens SON DNA binding protein (SON) mRNA |
| 879 | 14055 | 27121 | 4.03 | 0.0E+00 | AB028942.1 | NT | Homo sapiens mRNA for KIAA1019 protein, partial cds |
| 880 | 14056 | 27122 | 3.87 | 0.0E+00 | AB028942.1 | NT | Homo sapiens ribosomal protein S5 (RPS5) mRNA |
| 884 | 14060 | 27125 | 1.54 | 0.0E+00 | AB020717.1 | NT | Homo sapiens mRNA for KIAA0910 protein, partial cds |
| 884 | 14060 | 27126 | 1.54 | 0.0E+00 | AB020717.1 | NT | Homo sapiens mRNA for KIAA0910 protein, partial cds |
| 885 | 14061 | 27127 | 1.82 | 0.0E+00 | AA533272.1 | EST_HUMAN | U66407.s1 NCI_CGAP_P10 Homo sapiens cDNA clone IMAGE:987453 |
| 885 | 14061 | 27128 | 1.82 | 0.0E+00 | AA533272.1 | EST_HUMAN | U66407.s1 NCI_CGAP_P10 Homo sapiens cDNA clone IMAGE:987453 |
| 888 | 14062 | 27129 | 8.41 | 0.0E+00 | BF677694.1 | EST_HUMAN | 602085379F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4249916 8' |
| 890 | 14066 | 27130 | 1.4 | 0.0E+00 | 7657213 | NT | Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA |
| 890 | 14066 | 27130 | 1.4 | 0.0E+00 | 7657213 | NT | Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA |
| 891 | 14067 | 27131 | 2.54 | 0.0E+00 | 7657213 | NT | Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA |
| 891 | 14067 | 27132 | 2.54 | 0.0E+00 | 7657213 | NT | Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA |
| 914 | 14089 | 27155 | 0.98 | 0.0E+00 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 921 | 14086 | 27160 | 1.93 | 0.0E+00 | BE089592.1 | EST_HUMAN | QV0-BT0703-280400-211-g11 BT0703 Homo sapiens cDNA |
| 921 | 14086 | 27161 | 1.93 | 0.0E+00 | BE089592.1 | EST_HUMAN | QV0-BT0703-280400-211-g11 BT0703 Homo sapiens cDNA |
| 931 | 14108 | 27170 | 2.7 | 0.0E+00 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 941 | 14115 | 27176 | 9.69 | 0.0E+00 | 4504958 | NT | Homo sapiens lamellipodin receptor 1 (67kD, ribosomal protein SA) (LAMR1), mRNA |
| 943 | 14115 | 27176 | 9.69 | 0.0E+00 | 4504958 | NT | Homo sapiens lamellipodin receptor 1 (67kD, ribosomal protein SA) (LAMR1), mRNA |
| 944 | 14117 | 27177 | 1.42 | 0.0E+00 | AF089147.1 | NT | Homo sapiens alpha-1-antitrypsin precursor, mRNA, partial cds |
| 945 | 14118 | 27177 | 0.69 | 0.0E+00 | S69384.1 | NT | protein C inhibitor [human, leukocytes, Genomic, 1216 nt, segment 2 of 5] |
| 945 | 14118 | 27178 | 0.69 | 0.0E+00 | S69384.1 | NT | protein C inhibitor [human, leukocytes, Genomic, 1216 nt, segment 2 of 5] |
| 945 | 14118 | 27179 | 0.69 | 0.0E+00 | S69384.1 | NT | protein C inhibitor [human, leukocytes, Genomic, 1216 nt, segment 2 of 5] |
| 946 | 14119 | 27180 | 1.62 | 0.0E+00 | L28101.1 | NT | Homo sapiens of cardiac alpha-myosin heavy chain gene |
| 948 | 14122 | 27183 | 0.71 | 0.0E+00 | Z20666.1 | NT | Homo sapiens of cardiac alpha-myosin heavy chain gene |
| 949 | 14122 | 27184 | 0.71 | 0.0E+00 | Z20666.1 | NT | Homo sapiens of cardiac alpha-myosin heavy chain gene |

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Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 973 | 14146 | 27205 | 0.93 | 0.0E+00 | M37190.1 | NT | Human ras inhibitor mRNA, 3' end |
| 974 | 14147 | 27206 | 9.11 | 0.0E+00 | M37190.1 | NT | Human ras inhibitor mRNA, 3' end |
| 975 | 14148 | 27207 | 0.79 | 0.0E+00 | M37190.1 | NT | Human ras inhibitor mRNA, 3' end |
| 976 | 14149 | 27208 | 1.24 | 0.0E+00 | 4507430 | NT | Human sapiens thyroidocyte embryonic factor (TEF), mRNA |
| 978 | 14149 | 27209 | 1.24 | 0.0E+00 | 4507430 | NT | Human sapiens thyroidocyte embryonic factor (TEF), mRNA |
| 984 | 16027 | 27216 | 3.95 | 0.0E+00 | A1001848.1 | EST_HUMAN | os98e03.s1 NCI_CGAP_G03 Homo sapiens cDNA clone IMAGE:1613404 3' |
| 984 | 16027 | 27217 | 3.95 | 0.0E+00 | A1001848.1 | EST_HUMAN | os98e03.s1 NCI_CGAP_G03 Homo sapiens cDNA clone IMAGE:1613404 3' |
| 986 | 14158 | 27219 | 14.34 | 0.0E+00 | 7657266 | NT | Homo sapiens KIAA0829 protein Mox2 interacting nuclear target (MINT) homolog (KIAA0829), mRNA |
| 997 | 14168 | 27228 | 1.76 | 0.0E+00 | AB030568.1 | NT | Homo sapiens mRNA for PSP24, complete cds |
| 1008 | 14177 | 27236 | 43.82 | 0.0E+00 | BF366974.1 | EST_HUMAN | PM2-GN0014-050900-001-f02 GN0014 Homo sapiens cDNA |
| 1008 | 14177 | 27237 | 43.82 | 0.0E+00 | BF366974.1 | EST_HUMAN | PM2-GN0014-050900-001-f02 GN0014 Homo sapiens cDNA |
| 1008 | 14177 | 27238 | 43.82 | 0.0E+00 | BF366974.1 | EST_HUMAN | PM2-GN0014-050900-001-f02 GN0014 Homo sapiens cDNA |
| 1008 | 14179 | 27241 | 2.02 | 0.0E+00 | X52207.1 | NT | Homo sapiens partial c-fos gene, exons 2 and 3 |
| 1008 | 14179 | 27242 | 2.02 | 0.0E+00 | X52207.1 | NT | Homo sapiens partial c-fos gene, exons 2 and 3 |
| 1017 | 14188 | 27249 | 3.97 | 0.0E+00 | 4757868 | NT | Homo sapiens chromodomain protein, Y chromosome-like (CDYL), mRNA |
| 1029 | 14189 | 27257 | 1.07 | 0.0E+00 | U83668.1 | NT | Human beta-tubulin (TUB4q) gene, complete cds |
| 1030 | 14200 | 27258 | 5.81 | 0.0E+00 | U83668.1 | NT | Human beta-tubulin (TUB4q) gene, complete cds |
| 1031 | 14200 | 27258 | 9.09 | 0.0E+00 | U83668.1 | NT | Human beta-tubulin (TUB4q) gene, complete cds |
| 1034 | 14203 | | 4 | 0.0E+00 | AF199490.1 | NT | Homo sapiens 8q22.1 region and MTG8 (CBFA2T1) gene, partial cds |
| 1035 | 14203 | | 29.66 | 0.0E+00 | AF199490.1 | NT | Homo sapiens 8q22.1 region and MTG8 (CBFA2T1) gene, partial cds |
| 1039 | 14207 | 27264 | 0.98 | 0.0E+00 | AF111170.3 | NT | Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene |
| 1040 | 14207 | 27264 | 4.88 | 0.0E+00 | AF111170.3 | NT | Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene |
| 1041 | 14207 | 27264 | 1.3 | 0.0E+00 | AF111170.3 | NT | Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene |
| 1042 | 14208 | 27265 | 1.18 | 0.0E+00 | AF111170.3 | NT | Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene |
| 1045 | 14211 | 27268 | 2.11 | 0.0E+00 | 7661685 | NT | Homo sapiens DKFZP566M0122 protein (DKFZP566M0122), mRNA |
| 1048 | 14218 | 27272 | 1.27 | 0.0E+00 | 6803114 | NT | Homo sapiens inner membrane protein, mitochondrial (IMMT), mRNA |
| 1051 | 14217 | | 1.39 | 0.0E+00 | AA458680.1 | EST_HUMAN | es68g07.s1 Strabagene fetal retina 037202 Homo sapiens cDNA clone IMAGE:839236 3' similar to SW:PRS8 HUMAN P47210 26S PROTEASE REGULATORY SUBUNIT 8; |
| 1054 | 14220 | 27277 | 2.43 | 0.0E+00 | N43182.1 | EST_HUMAN | EST15124 WATM1 Homo sapiens cDNA clone 5124 similar to DNA-DIRECTED RNA POLYMERASE II (alignment Ser and Pro with BLASTx or p) |
| 1054 | 14220 | 27278 | 2.43 | 0.0E+00 | N43182.1 | EST_HUMAN | EST15124 WATM1 Homo sapiens cDNA clone 5124 similar to DNA-DIRECTED RNA POLYMERASE II (alignment Ser and Pro with BLASTx or p) |
| 1055 | 14221 | 27279 | 0.97 | 0.0E+00 | 4759249 | NT | Homo sapiens TRAF family member-associated NFKB activator (TANK) mRNA |

Page 489 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 1055 | 14221 | 27280 | 0.97 | 0.0E+00 | 4759249 | NT | Homo sapiens TRAF family member-associated NFkB activator (TANK) mRNA |
| 1058 | 14224 | | 3.27 | 0.0E+00 | 8922833 | NT | Homo sapiens hypothetical protein FLJ11186 (FLJ11186), mRNA |
| 1072 | 14238 | 27295 | 1.51 | 0.0E+00 | 4758569 | NT | Homo sapiens heat shock 70kD protein 98 (mortalin-2) (HSPA9B) mRNA |
| 1090 | 14255 | 27310 | 1.51 | 0.0E+00 | 4826872 | NT | Homo sapiens cadherin 8, K-cadherin (fetal kidney) (CDH8) mRNA |
| 1090 | 14255 | 27311 | 1.51 | 0.0E+00 | 4826872 | NT | Homo sapiens cadherin 8, K-cadherin (fetal kidney) (CDH8) mRNA |
| 1094 | 14259 | 27315 | 2.74 | 0.0E+00 | 8923624 | NT | Homo sapiens hypothetical protein FLJ20695 (FLJ20695), mRNA |
| 1094 | 14259 | 27316 | 2.74 | 0.0E+00 | 8923624 | NT | Homo sapiens hypothetical protein FLJ20695 (FLJ20695), mRNA |
| 1094 | 14259 | 27317 | 13.57 | 0.0E+00 | 8923624 | NT | Homo sapiens mRNA for alpha-tubulin 8 (TUBA8 gene) |
| 1097 | 14262 | | 0.92 | 0.0E+00 | 8923087 | NT | Homo sapiens hypothetical protein FLJ20080 (FLJ20080), mRNA |
| 1099 | 14264 | 27321 | 2.81 | 0.0E+00 | 6174384 | NT | Homo sapiens alkylation repair, alkB homolog (ABH), mRNA |
| 1100 | 14271 | 27330 | 2.04 | 0.0E+00 | 4758117 | NT | Homo sapiens Death associated protein 3 (DAP3) mRNA |
| 1120 | 14285 | 27340 | 1.91 | 0.0E+00 | BE005208.1 | EST_HUMAN | MRO-BND116-200300-003-H08 BN0115 Homo sapiens cDNA |
| 1143 | 14308 | 27364 | 3.82 | 0.0E+00 | 7706134 | NT | Homo sapiens potassium channel, subfamily K, member 9 (KCNK9), mRNA |
| 1143 | 14308 | 27365 | 3.52 | 0.0E+00 | 7706134 | NT | Homo sapiens potassium channel, subfamily K, member 9 (KCNK9), mRNA |
| 1155 | 14319 | 27373 | 0.82 | 0.0E+00 | 4826947 | NT | Homo sapiens protein kinase, X-linked (PRKX) mRNA |
| 1155 | 14319 | 27374 | 0.82 | 0.0E+00 | 4826947 | NT | Homo sapiens protein kinase, X-linked (PRKX) mRNA |
| 1156 | 14320 | 27375 | 9.36 | 0.0E+00 | 4506712 | NT | Homo sapiens ribosomal protein S27a (RPS27A) mRNA |
| 1158 | 14322 | 27377 | 1.2 | 0.0E+00 | 8923290 | NT | Homo sapiens hypothetical protein FLJ20309 (FLJ20309), mRNA |
| 1161 | 14325 | 27380 | 3.85 | 0.0E+00 | AB002059.1 | NT | Homo sapiens DNA for Human P2XM, complete cds |
| 1163 | 14327 | 27381 | 19.8 | 0.0E+00 | AB002059.1 | NT | Homo sapiens DNA for Human P2XM, complete cds |
| 1164 | 14328 | 27382 | 4.52 | 0.0E+00 | 7637488 | NT | Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA |
| 1164 | 14328 | 27383 | 4.52 | 0.0E+00 | 7637488 | NT | Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA |
| 1168 | 14331 | 27385 | 1.44 | 0.0E+00 | 7706500 | NT | Homo sapiens Npw38-binding protein NpwBP (LOC51729), mRNA |
| 1169 | 14332 | 27387 | 0.71 | 0.0E+00 | X95826.1 | NT | H. sapiens ART4 gene |
| 1169 | 14332 | 27388 | 0.71 | 0.0E+00 | X95826.1 | NT | H. sapiens ART4 gene |
| 1170 | 14332 | 27389 | 1.15 | 0.0E+00 | AI147650.1 | EST_HUMAN | qb22d10.xt Scores, pregnant, uterus, NBHPU Homo sapiens cDNA clone IMAGE:16970113' |
| 1172 | 14335 | 27391 | 1.62 | 0.0E+00 | AB020710.1 | NT | Homo sapiens mRNA for KIAA0903 protein, partial cds |
| 1181 | 14344 | 27400 | 1.22 | 0.0E+00 | 4758081 | NT | Homo sapiens chondroin sulfate proteoglycan 2 (versican) (CSPG2) mRNA |
| 1181 | 14344 | 27401 | 1.22 | 0.0E+00 | 4758081 | NT | Homo sapiens chondroin sulfate proteoglycan 2 (versican) (CSPG2) mRNA |
| 1182 | 14345 | 27402 | 1.32 | 0.0E+00 | 9958844 | NT | Homo sapiens chromosome 12 open reading frame 3 (C12ORF3), mRNA |
| 1185 | 14357 | 27415 | 2.19 | 0.0E+00 | 7305076 | NT | Homo sapiens glutamate decarboxylase 1 (brain, 87kD) (GAD1), transcript variant GAD25, mRNA |
| 1185 | 14357 | 27416 | 2.19 | 0.0E+00 | 7305076 | NT | Homo sapiens glutamate decarboxylase 1 (brain, 87kD) (GAD1), transcript variant GAD25, mRNA |
| 1188 | 14360 | 27419 | 1.09 | 0.0E+00 | AB037635.1 | NT | Homo sapiens mRNA for KIAA1414 protein, partial cds |
| 1205 | 14367 | 27426 | 8.64 | 0.0E+00 | 4857887 | NT | Homo sapiens keratin 18 (KRT18) mRNA |

Page 480 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 1238 | 14395 | | 1.28 | 0.0E+00 | 7657336 | NT | Homo sapiens mult. (E. coli) homolog 3 (MLH3), mRNA |
| 1260 | 14408 | 27471 | 0.94 | 0.0E+00 | 8922593 | NT | Homo sapiens hypothetical protein FLJ10697 (FLJ10697), mRNA |
| 1254 | 14413 | 27475 | 2.89 | 0.0E+00 | AF264750.1 | NT | Homo sapiens ALR-like protein mRNA, partial cds |
| 1254 | 14413 | 27475 | 2.89 | 0.0E+00 | AF264750.1 | NT | Homo sapiens ALR-like protein mRNA, partial cds |
| 1254 | 14414 | 27477 | 3.33 | 0.0E+00 | AF264750.1 | NT | Homo sapiens ALR-like protein mRNA, partial cds |
| 1258 | 16032 | 27478 | 2.46 | 0.0E+00 | AF264750.1 | NT | Homo sapiens ALR-like protein mRNA, partial cds |
| 1275 | 14432 | 27503 | 4.86 | 0.0E+00 | AF109718.1 | NT | Homo sapiens chromosome 3 subtelomeric region |
| 1276 | 14433 | 27504 | 1.67 | 0.0E+00 | 4503098 | NT | Homo sapiens chondroitin sulfate proteoglycan 4 (melanoma-associated) (CSPG4), mRNA |
| 1286 | 14442 | 27510 | 0.69 | 0.0E+00 | 4505740 | NT | Homo sapiens prefoldin 4 (PF0N4) mRNA |
| 1295 | 14451 | | 1.38 | 0.0E+00 | Y18000.1 | NT | Homo sapiens NF2 gene |
| 1303 | 14459 | 27525 | 28.86 | 0.0E+00 | 4508718 | NT | Homo sapiens ribosomal protein S2 (RPS2) mRNA |
| 1310 | 14468 | 27534 | 2.96 | 0.0E+00 | AF084478.1 | NT | Homo sapiens Williams-Beuren syndrome deletion transcript 9 (WBSOR9) mRNA, complete cds |
| 1316 | 14472 | 27538 | 1.63 | 0.0E+00 | AB040940.1 | NT | Homo sapiens mRNA for KIAA1507 protein, partial cds |
| 1316 | 14472 | 27539 | 1.63 | 0.0E+00 | AB040940.1 | NT | Homo sapiens mRNA for KIAA1507 protein, partial cds |
| 1328 | 14485 | 27562 | 3.28 | 0.0E+00 | 5174748 | NT | Homo sapiens Wolfram syndrome (WFS) mRNA |
| 1328 | 14485 | 27562 | 3.28 | 0.0E+00 | 5174748 | NT | Homo sapiens Wolfram syndrome (WFS) mRNA |
| 1328 | 14485 | 27564 | 2.16 | 0.0E+00 | AF066186.1 | NT | Homo sapiens protein phosphatase 2A BR gamma subunit gene, exon 5 |
| 1329 | 14498 | | 1.2 | 0.0E+00 | 7657529 | NT | Homo sapiens rhabdoid tumor deletion region protein 1 (RTDR1), mRNA |
| 1339 | 16034 | 27566 | 1.2 | 0.0E+00 | 7657529 | NT | Homo sapiens rhabdoid tumor deletion region protein 1 (RTDR1), mRNA |
| 1339 | 16034 | 27567 | 1.4 | 0.0E+00 | Y07829.2 | NT | Homo sapiens RFB30 gene for RING finger protein |
| 1345 | 15991 | 27573 | 1.86 | 0.0E+00 | 5803146 | NT | Homo sapiens zinc finger protein 9 (ZNF9), mRNA |
| 1346 | 14501 | 27574 | 0.83 | 0.0E+00 | 4508004 | NT | Homo sapiens zinc finger protein 173 (ZNF173) mRNA |
| 1347 | 14502 | 27575 | 1.7 | 0.0E+00 | Y07829.2 | NT | Homo sapiens RFB30 gene for RING finger protein |
| 1349 | 14504 | 27576 | 1.65 | 0.0E+00 | 5803146 | NT | Homo sapiens zinc finger protein 9 (ZNF9), mRNA |
| 1350 | 14505 | 27577 | 0.71 | 0.0E+00 | 4508004 | NT | Homo sapiens zinc finger protein 173 (ZNF173) mRNA |
| 1351 | 14506 | 27578 | 4.44 | 0.0E+00 | AB011149.1 | NT | Homo sapiens mRNA for KIAA0577 protein, complete cds |
| 1353 | 14508 | 27580 | 1.34 | 0.0E+00 | 7661965 | NT | Homo sapiens KIAA0170 gene product (KIAA0170), mRNA |
| 1354 | 14509 | 27581 | 4.98 | 0.0E+00 | 7661965 | NT | Homo sapiens KIAA0170 gene product (KIAA0170), mRNA |
| 1355 | 14510 | 27582 | 3.83 | 0.0E+00 | 8567387 | NT | Homo sapiens period (Drosophila) homolog 3 (PER3), mRNA |
| 1356 | 14511 | 27583 | 3.83 | 0.0E+00 | 8567387 | NT | Homo sapiens period (Drosophila) homolog 3 (PER3), mRNA |
| 1356 | 14511 | 27584 | 1.36 | 0.0E+00 | M14123.1 | NT | Human endogenous retrovirus HERV-K10 |
| 1368 | 14622 | 27597 | 1.02 | 0.0E+00 | BE257955.1 | EST_HUMAN | 601109782F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:3350471 5' |
| 1429 | 14683 | 27656 | 1.02 | 0.0E+00 | BE257955.1 | EST_HUMAN | 601109782F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:3350471 5' |

Page 491 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 1440 | 14593 | 27688 | 1.03 | 0.0E+00 | AJ250014.1 | NT | Homo sapiens mRNA for Familial Cylindromatosis cylid gene |
| 1449 | 14602 | 27680 | 13.57 | 0.0E+00 | 6042208 | NT | RAN, member RAS oncogene family/Homo sapiens RAN, member RAS oncogene family (RAN), mRNA |
| 1457 | 14510 | 27690 | 0.97 | 0.0E+00 | 4505046 | NT | Homo sapiens proprotein convertase subtilisin/kexin type 2 (PCSK2) mRNA |
| 1457 | 14510 | 27691 | 0.97 | 0.0E+00 | 4505046 | NT | Homo sapiens proprotein convertase subtilisin/kexin type 2 (PCSK2) mRNA |
| 1459 | 14512 | 27694 | 1.99 | 0.0E+00 | 7705565 | NT | Homo sapiens KIAA1114 protein (KIAA1114), mRNA |
| 1459 | 14512 | 27695 | 1.89 | 0.0E+00 | 7705565 | NT | Homo sapiens KIAA1114 protein (KIAA1114), mRNA |
| 1459 | 14512 | 27697 | 29.09 | 0.0E+00 | AJ238093.1 | NT | Homo sapiens partial AF-4 gene, exons 2 to 7 and Alu repeat elements |
| 1462 | 14515 | 27709 | 4.63 | 0.0E+00 | AF038280.1 | NT | Homo sapiens alpha1-6fucosyltransferase (alpha1-6FucT) gene, exon 7 |
| 1471 | 14625 | 27724 | 4.2 | 0.0E+00 | AL132959.1 | NT | Novel human gene on chromosome 20 |
| 1490 | 14643 | 27724 | 1.37 | 0.0E+00 | AL137764.1 | NT | Novel human gene mapping to chromosome 1 |
| 1481 | 14644 | 27726 | 1.73 | 0.0E+00 | D87077.1 | NT | Human mRNA for KIAA0240 gene, partial cds |
| 1495 | 14648 | 27730 | 8.24 | 0.0E+00 | 6912467 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 1498 | 14651 | 27733 | 2.28 | 0.0E+00 | 7661965 | NT | Homo sapiens KIAA0170 gene product (KIAA0170), mRNA |
| 1500 | 14653 | 27736 | 2.28 | 0.0E+00 | 7661965 | NT | Homo sapiens KIAA0170 gene product (KIAA0170), mRNA |
| 1500 | 14653 | 27736 | 3.74 | 0.0E+00 | Y07829.2 | NT | Homo sapiens RFB30 gene for RING finger protein |
| 1501 | 14654 | | 6.62 | 0.0E+00 | M60676.1 | NT | Human von Willebrand factor pseudogene corresponding to exons 23 through 34 |
| 1507 | 14660 | 27742 | 6.62 | 0.0E+00 | M60676.1 | NT | Human von Willebrand factor pseudogene corresponding to exons 23 through 34 |
| 1507 | 14660 | 27743 | 6.62 | 0.0E+00 | M60676.1 | NT | Human von Willebrand factor pseudogene corresponding to exons 23 through 34 |
| 1541 | 14693 | 27772 | 2.61 | 0.0E+00 | 7706434 | NT | Homo sapiens hHDC for homolog of Drosophila headcase (LOC51696), mRNA |
| 1555 | 14708 | 27788 | 2.66 | 0.0E+00 | AA481172.1 | EST_HUMAN | es49403.11 NCI CGAP_GCB1 Homo sapiens cDNA clone IMAGE:816116 5' |
| 1562 | 14715 | 27792 | 27.8 | 0.0E+00 | AF023860.1 | NT | Cercopithecus aethiops cyclophilin A mRNA, complete cds |
| 1562 | 14715 | 27793 | 27.8 | 0.0E+00 | AF023860.1 | NT | Cercopithecus aethiops cyclophilin A mRNA, complete cds |
| 1564 | 14717 | 27798 | 1.55 | 0.0E+00 | AW976097.1 | EST_HUMAN | EST388208 MAGE resequences, MAGN Homo sapiens cDNA |
| 1564 | 14717 | 27797 | 1.55 | 0.0E+00 | AW976097.1 | EST_HUMAN | EST388208 MAGE resequences, MAGN Homo sapiens cDNA |
| 1565 | 14718 | 27798 | 1.03 | 0.0E+00 | D10884.1 | NT | Bovine mRNA for neurocalcin |
| 1567 | 14720 | | 3.2 | 0.0E+00 | U78027.1 | NT | Homo sapiens Bruton's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44L) and FTP3 (FTP3) genes, complete cds |
| 1568 | 14721 | 27801 | 26.69 | 0.0E+00 | 4505404 | NT | Homo sapiens transmembrane glycoprotein (GPNMB) mRNA |
| 1568 | 14721 | 27802 | 26.69 | 0.0E+00 | 4505404 | NT | Homo sapiens transmembrane glycoprotein (GPNMB) mRNA |
| 1570 | 14723 | 27804 | 3.85 | 0.0E+00 | 7662405 | NT | Homo sapiens KIAA0957 protein (KIAA0957), mRNA |
| 1571 | 14724 | | 9.78 | 0.0E+00 | 7656972 | NT | Homo sapiens TNF-inducible protein CG12-1 (CG12-1), mRNA |
| 1576 | 14729 | 27810 | 64.77 | 0.0E+00 | M98478.1 | NT | Human transglutaminase mRNA, complete cds |
| 1578 | 14731 | 27811 | 0.97 | 0.0E+00 | 4507720 | NT | Homo sapiens titin (TTN) mRNA |
| 1578 | 14731 | 27812 | 0.97 | 0.0E+00 | 4507720 | NT | Homo sapiens titin (TTN) mRNA |

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| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 1578 | 16042 | | 32.23 | 0.0E+00 | 4506654 | NT | Homo sapiens ribosomal protein L5 (RPL5) mRNA |
| 1580 | 14732 | 27813 | 27.68 | 0.0E+00 | M14199.1 | NT | Human laminin receptor (2H5 epitope) mRNA, 5' end |
| 1592 | 14745 | 27826 | 1.43 | 0.0E+00 | 4507720 | NT | Homo sapiens titin (TTN) mRNA |
| 1592 | 14745 | 27829 | 1.43 | 0.0E+00 | 4507720 | NT | Homo sapiens titin (TTN) mRNA |
| 1594 | 14747 | 27830 | 13.85 | 0.0E+00 | 4503098 | NT | Homo sapiens chondroitin sulfate proteoglycan 4 (melanome-associated) (CSPG4), mRNA |
| 1602 | 14755 | | 3.25 | 0.0E+00 | D00333.1 | NT | human c-yes-2 gene |
| 1611 | 14764 | 27844 | 11.38 | 0.0E+00 | Z83738.1 | NT | H. sapiens HH2Ble gene |
| 1612 | 14765 | 27845 | 2.66 | 0.0E+00 | 5921460 | NT | Homo sapiens butyrophilin, subfamily 2, member A1 (BTN2A1), mRNA |
| 1612 | 14765 | 27846 | 2.55 | 0.0E+00 | 5921460 | NT | Homo sapiens butyrophilin, subfamily 2, member A1 (BTN2A1), mRNA |
| 1613 | 14766 | 27847 | 11.09 | 0.0E+00 | AV690831.1 | EST_HUMAN | AV690831 GKC Homo sapiens cDNA clone GKCBOF02 5' |
| 1613 | 14766 | 27848 | 11.09 | 0.0E+00 | AV690831.1 | EST_HUMAN | AV690831 GKC Homo sapiens cDNA clone GKCBOF02 5' |
| 1616 | 16043 | 27851 | 2.1 | 0.0E+00 | AB040905.1 | NT | Homo sapiens mRNA for KIAA1472 protein, partial cds |
| 1618 | 14770 | 27852 | 1.88 | 0.0E+00 | AF157478.1 | NT | Homo sapiens DNA polymerase zeta catalytic subunit (REV3) mRNA, complete cds |
| 1620 | 14772 | 27855 | 6.83 | 0.0E+00 | 7692183 | NT | Homo sapiens KIAA0569 gene product (KIAA0569), mRNA |
| 1620 | 14772 | 27856 | 6.83 | 0.0E+00 | 7692183 | NT | Homo sapiens KIAA0569 gene product (KIAA0569), mRNA |
| 1622 | 14774 | 27857 | 58.88 | 0.0E+00 | 5729876 | NT | Homo sapiens heat shock 70kD protein 10 (HSC71) (HSPA10), mRNA |
| 1622 | 14774 | 27858 | 58.88 | 0.0E+00 | 5729876 | NT | Homo sapiens heat shock 70kD protein 10 (HSC71) (HSPA10), mRNA |
| 1624 | 14776 | 27860 | 1.53 | 0.0E+00 | M91803.1 | NT | Human sodium channel mRNA |
| 1639 | 14791 | 27876 | 6.29 | 0.0E+00 | H28973.1 | EST_HUMAN | y076c05.e1 Soares adult brain N2b4-HB557 Homo sapiens cDNA clone IMAGE:163848 3' |
| 1648 | 14801 | 27887 | 1.87 | 0.0E+00 | AB040629.1 | NT | Homo sapiens mRNA for KIAA1609 protein, partial cds |
| 1648 | 14801 | 27888 | 1.87 | 0.0E+00 | AB040629.1 | NT | Homo sapiens mRNA for KIAA1609 protein, partial cds |
| 1668 | 14820 | 27903 | 1.66 | 0.0E+00 | AW444637.1 | EST_HUMAN | UJ-HB13-qlw-c-04-c-J1 et NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2793284 3' |
| 1698 | 14850 | 27936 | 2.12 | 0.0E+00 | BE144364.1 | EST_HUMAN | MFO-HT0166-191189-004-b11 HT0168 Homo sapiens cDNA |
| 1698 | 14850 | 27937 | 2.12 | 0.0E+00 | BE144364.1 | EST_HUMAN | MFO-HT0166-191189-004-b11 HT0168 Homo sapiens cDNA |
| 1702 | 14854 | 27941 | 1.3 | 0.0E+00 | AI768104.1 | EST_HUMAN | wg81b07.x1 Soares_NSF_F8_gw_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2371477 3' similar to |
| 1703 | 14855 | 27942 | 1.71 | 0.0E+00 | 4758513 | NT | TR-062788 062788 CYS2/HIS2 ZINC FINGER PROTEIN. ; |
| 1704 | 14856 | 27943 | 2.8 | 0.0E+00 | AF051717.1 | NT | Homo sapiens T-cell receptor gamma V1 gene region |
| 1708 | 14859 | 27947 | 2.1 | 0.0E+00 | M29580.1 | NT | Human zinc-finger protein 7 (ZFP7) mRNA, complete cds |
| 1708 | 14859 | 27948 | 2.1 | 0.0E+00 | M29580.1 | NT | Human zinc-finger protein 7 (ZFP7) mRNA, complete cds |
| 1710 | 14861 | 27950 | 64.4 | 0.0E+00 | 4537887 | NT | Homo sapiens keratin 18 (KRT18) mRNA |
| 1711 | 14862 | 27951 | 2.42 | 0.0E+00 | 7657055 | NT | Homo sapiens vets avian erythroblastosis virus E26 oncogene related (ERG), mRNA |
| 1714 | 14865 | 27954 | 1.08 | 0.0E+00 | BE222374.1 | EST_HUMAN | huT1405.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3168281 3' similar to TR-095147 095147 |
| | | | | | | | MKP-1 LIKE PROTEIN TYROSINE PHOSPHATASE ; |

Page 493 of 550
Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 1714 | 14865 | 27955 | 1.08 | 0.0E+00 | BE222374.1 | EST_HUMAN | hu11d05.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3168281 3' similar to TR:086147 O88147 |
| 1716 | 14866 | 27957 | 3.2 | 0.0E+00 | 4557610 | NT | MKP-1 LIKE PROTEIN TYROSINE PHOSPHATASE ; |
| 1719 | 14869 | 27980 | 4.3 | 0.0E+00 | H30132.1 | EST_HUMAN | Homo sapiens gamma-aminobutyric acid (GABA) A receptor, gamma 2 (GABRG2) mRNA |
| 1719 | 14869 | 27981 | 4.3 | 0.0E+00 | H30132.1 | EST_HUMAN | yo58e08.t1 Scanco breast 3NbHb1st Homo sapiens cDNA clone IMAGE:182246 5' similar to gb:M84069 |
| 1721 | 14871 | 27983 | 0.97 | 0.0E+00 | A1149880.1 | EST_HUMAN | yo58e08.t1 Scanco breast 3NbHb1st Homo sapiens cDNA clone IMAGE:182246 5' similar to gb:M84069 |
| 1722 | 14872 | 27984 | 10.28 | 0.0E+00 | Z80780.1 | NT | GAMMA-GLUTAMYL TRANSPEPTIDASE 5 PRECURSOR (HUMAN); |
| 1725 | 14875 | 27976 | 21.3 | 0.0E+00 | 5031748 | NT | yo58e08.t1 Scanco breast 3NbHb1st Homo sapiens cDNA clone IMAGE:182246 5' similar to gb:M84069 |
| 1734 | 14883 | 27976 | 6.13 | 0.0E+00 | 8923841 | NT | GAMMA-GLUTAMYL TRANSPEPTIDASE 5 PRECURSOR (HUMAN); |
| 1737 | 14886 | 27979 | 1.83 | 0.0E+00 | 5453855 | NT | q43609.x1 Scanco testis_NHT Homo sapiens cDNA clone IMAGE:1762809 3' |
| 1741 | 14890 | 27983 | 1.95 | 0.0E+00 | M75980.1 | NT | H. sapiens H2B/h gene |
| 1741 | 14890 | 27984 | 1.95 | 0.0E+00 | M75980.1 | NT | H. sapiens H2B/h gene |
| 1744 | 14893 | 27988 | 1.11 | 0.0E+00 | M75980.1 | NT | Homo sapiens high-mobility group (nonhistone chromosomal) protein 17 (HMG17), mRNA |
| 1747 | 14896 | 27990 | 2.54 | 0.0E+00 | M75980.1 | NT | Homo sapiens FOXJ2 forkhead factor (LOC58810), mRNA |
| 1747 | 14898 | 27991 | 2.54 | 0.0E+00 | M75980.1 | NT | Homo sapiens pericentriolar material 1 (PCM1) mRNA |
| 1751 | 14900 | 27987 | 6.57 | 0.0E+00 | AB028542.1 | NT | Homo sapiens hepatocyte growth factor gene, exon 15 |
| 1753 | 14902 | 28000 | 2.64 | 0.0E+00 | S94400.1 | NT | Human hepatocyte growth factor gene, exon 15 |
| 1762 | 14911 | 28000 | 5.28 | 0.0E+00 | 4557538 | NT | Human hepatocyte growth factor gene, exon 15 |
| 1784 | 14933 | 28027 | 3.33 | 0.0E+00 | AF273841.1 | NT | Homo sapiens RNA binding motif protein, Y chromosome, family 1, member A1 (RBM1A1) mRNA |
| 1826 | 15047 | 28073 | 41.98 | 0.0E+00 | 4506718 | NT | Human hepatocyte growth factor gene, exon 15 |
| 1830 | 14978 | 28074 | 3.2 | 0.0E+00 | 4557556 | NT | Human hepatocyte growth factor gene, exon 15 |
| 1830 | 14980 | 28078 | 2.47 | 0.0E+00 | U63963.1 | NT | Homo sapiens WAVE2 mRNA for WASP-family protein, complete cds |
| 1833 | 14980 | 28083 | 7.65 | 0.0E+00 | AA113030.1 | EST_HUMAN | TCR zeta [human, Genomic] mRNA, 365 nt, segment 1 of 8 |
| 1837 | 15048 | 28083 | 1.7 | 0.0E+00 | U14987.1 | NT | Homo sapiens solute carrier family 26 (sulfate transporter), member 2 (SLC26A2) mRNA |
| 1839 | 14985 | 28085 | 24.06 | 0.0E+00 | AB002331.1 | NT | Homo sapiens SMCY (SMCY) gene, complete cds |
| 1850 | 14986 | 28099 | 9 | 0.0E+00 | 4505332 | NT | Homo sapiens ribosomal protein S2 (RPS2) mRNA |
| 1852 | 14989 | 28102 | 9 | 0.0E+00 | 4505332 | NT | Homo sapiens ribosomal protein p300 (EP300) mRNA |
| 1863 | 14899 | 28103 | 24.99 | 0.0E+00 | 4502284 | NT | Homo sapiens E1A binding protein p300 (EP300) mRNA |
| 1863 | 14899 | 28103 | 24.99 | 0.0E+00 | 4502284 | NT | Homo sapiens E1A binding protein p300 (EP300) mRNA |
| 1863 | 14899 | 28104 | 24.99 | 0.0E+00 | 4502284 | NT | Homo sapiens nuclear autoantigenic sperm protein (histone-binding) (NASP) mRNA |
| 1863 | 14899 | 28104 | 24.99 | 0.0E+00 | 4502284 | NT | Human ribosomal protein L21 mRNA, complete cds |
| 1863 | 14899 | 28104 | 24.99 | 0.0E+00 | 4502284 | NT | Human mRNA for KIAA0333 gene, partial cds |
| 1863 | 14899 | 28104 | 24.99 | 0.0E+00 | 4502284 | NT | Homo sapiens activating transcription factor 4 (tax-responsive enhancer element B87) (ATF4) mRNA |
| 1863 | 14899 | 28104 | 24.99 | 0.0E+00 | 4502284 | NT | Homo sapiens activating transcription factor 4 (tax-responsive enhancer element B87) (ATF4) mRNA |

Page 494 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 1853 | 14999 | 28105 | 24.99 | 0.0E+00 | 4502284 | NT | Homo sapiens activating transcription factor 4 (tax-responsive enhancer element B67) (ATF-4) mRNA |
| 1870 | 15015 | 28124 | 3.11 | 0.0E+00 | 4504626 | NT | Homo sapiens immunoglobulin superfamily, member 3 (IGSF3) mRNA, and translated products |
| 1870 | 15015 | 28125 | 3.11 | 0.0E+00 | 4504626 | NT | Homo sapiens immunoglobulin superfamily, member 3 (IGSF3) mRNA, and translated products |
| 1881 | 15025 | 28131 | 7.19 | 0.0E+00 | 6005855 | NT | Homo sapiens Retina-derived POU-domain factor-1 (RPF-1), mRNA |
| 1881 | 15025 | 28132 | 7.19 | 0.0E+00 | 6005855 | NT | Homo sapiens Retina-derived POU-domain factor-1 (RPF-1), mRNA |
| 1882 | 15038 | 28143 | 1.84 | 0.0E+00 | AB032978.1 | NT | Homo sapiens mRNA for KIAA1162 protein, partial cds |
| 1892 | 18036 | 28144 | 1.84 | 0.0E+00 | AB032978.1 | NT | Homo sapiens mRNA for KIAA1162 protein, partial cds |
| 1895 | 15038 | 28148 | 3.59 | 0.0E+00 | 4926783 | NT | Homo sapiens potassium voltage-gated channel, Shab-related subfamily, member 1 (KCNB1) mRNA |
| 1895 | 15038 | 28147 | 3.59 | 0.0E+00 | 4926783 | NT | Homo sapiens potassium voltage-gated channel, Shab-related subfamily, member 1 (KCNB1) mRNA |
| 1896 | 15039 | 28148 | 7.35 | 0.0E+00 | U07147.1 | NT | Human retinal degeneration slow (RDS) gene, exon 1 |
| 1896 | 15039 | 28149 | 7.35 | 0.0E+00 | U07147.1 | NT | Human retinal degeneration slow (RDS) gene, exon 1 |
| 1899 | 15042 | 28152 | 2.3 | 0.0E+00 | AW207280.1 | EST_HUMAN | UI-H-B11-efin-407-0-U1.s1 NCL CGAP Sub3 Homo sapiens cDNA clone IMAGE:2722333 3' |
| 1899 | 15042 | 28153 | 2.3 | 0.0E+00 | AW207280.1 | EST_HUMAN | UI-H-B11-efin-407-0-U1.s1 NCL CGAP Sub3 Homo sapiens cDNA clone IMAGE:2722333 3' |
| 1924 | 15067 | 28171 | 3.22 | 0.0E+00 | BE277486.1 | EST_HUMAN | 601179164F1 NIH_MGC 20 Homo sapiens cDNA clone IMAGE:3647239 5' |
| 1924 | 15067 | 28172 | 3.22 | 0.0E+00 | BE277486.1 | EST_HUMAN | 601179164F1 NIH_MGC 20 Homo sapiens cDNA clone IMAGE:3647239 5' |
| 1943 | 15086 | 28187 | 1.04 | 0.0E+00 | BE006292.1 | EST_HUMAN | RC2-BN0128-200300-012-604 BN0128 Homo sapiens cDNA |
| 1972 | 15116 | 28219 | 1.62 | 0.0E+00 | 7657360 | NT | Homo sapiens nuclear protein (NP220), mRNA |
| 1972 | 15116 | 28218 | 1.62 | 0.0E+00 | 7657360 | NT | Homo sapiens nuclear protein (NP220), mRNA |
| 1975 | 15118 | 28218 | 3.14 | 0.0E+00 | 4506384 | NT | Homo sapiens RAD1 (S. pombe) homolog (RAD1) mRNA, and translated products |
| 1975 | 15118 | 28219 | 3.14 | 0.0E+00 | 4506384 | NT | Homo sapiens RAD1 (S. pombe) homolog (RAD1) mRNA, and translated products |
| 1981 | 15124 | 28226 | 1.28 | 0.0E+00 | AB037788.1 | NT | Homo sapiens mRNA for KIAA1367 protein, partial cds |
| 1985 | 15128 | 28230 | 1.64 | 0.0E+00 | AF167476.1 | NT | Homo sapiens DNA polymerase zeta catalytic subunit (REV3) mRNA, complete cds |
| 1985 | 15128 | 28230 | 1.64 | 0.0E+00 | AF167476.1 | NT | Homo sapiens DNA polymerase zeta catalytic subunit (REV3) mRNA, complete cds |
| 1986 | 16051 | 28231 | 57.92 | 0.0E+00 | M98476.1 | NT | Human transglutaminase mRNA, complete cds |
| 1986 | 16051 | 28231 | 57.92 | 0.0E+00 | M98476.1 | NT | Human transglutaminase mRNA, complete cds |
| 1991 | 15133 | 28238 | 3.19 | 0.0E+00 | 4507464 | NT | Homo sapiens transforming growth factor, beta 3 (TGFB3), mRNA |
| 1991 | 15133 | 28239 | 3.19 | 0.0E+00 | 4507464 | NT | Homo sapiens transforming growth factor, beta 3 (TGFB3), mRNA |
| 1994 | 15135 | 28241 | 2.41 | 0.0E+00 | 7657038 | NT | Homo sapiens death receptor 6 (DR6), mRNA |
| 1994 | 15135 | 28241 | 2.41 | 0.0E+00 | 7657038 | NT | Homo sapiens death receptor 6 (DR6), mRNA |
| 1998 | 15137 | | 6.39 | 0.0E+00 | AF240788.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 2001 | 15142 | | 5.28 | 0.0E+00 | M59332.1 | NT | Human topoisomerase I pseudogene 1 |
| 2003 | 16052 | 28248 | 1.84 | 0.0E+00 | 5601805 | NT | Homo sapiens butyrophilin, subfamily 3, member A2 (BTN3A2), mRNA |

Table 4

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| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 2005 | 15145 | 28250 | 1.3 | 0.0E+00 | BE018066.1 | EST_HUMAN | bb73f1.y1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3048045 6' |
| 2011 | 15151 | 28255 | 1.89 | 0.0E+00 | 4809282 | NT | Homo sapiens histidine aminotransferase (HAL) mRNA |
| 2011 | 15151 | 28256 | 1.89 | 0.0E+00 | 4809282 | NT | Homo sapiens histidine aminotransferase (HAL) mRNA |
| 2024 | 15165 | | 1.04 | 0.0E+00 | AL163252.2 | NT | Homo sapiens chromosome 21 segment HS21C052 |
| 2026 | 15167 | 28272 | 1.41 | 0.0E+00 | 8400716 | NT | Homo sapiens nebulin (NEB), mRNA |
| 2026 | 15167 | 28273 | 1.41 | 0.0E+00 | 8400716 | NT | Homo sapiens nebulin (NEB), mRNA |
| 2027 | 15168 | 28274 | 12.98 | 0.0E+00 | 4826638 | NT | Homo sapiens actinin, alpha 4 (ACTN4) mRNA |
| 2027 | 15168 | 28275 | 12.98 | 0.0E+00 | 4826638 | NT | Homo sapiens actinin, alpha 4 (ACTN4) mRNA |
| 2037 | 15176 | 28288 | 2.11 | 0.0E+00 | AB018333.1 | NT | Homo sapiens mRNA for KIAA0780 protein, partial cds |
| 2037 | 15176 | 28289 | 2.11 | 0.0E+00 | AB018333.1 | NT | Homo sapiens mRNA for KIAA0780 protein, partial cds |
| 2043 | 15184 | 28293 | 1.93 | 0.0E+00 | M33782.1 | NT | Human TFE3 protein mRNA, partial cds |
| 2043 | 15184 | 28294 | 1.93 | 0.0E+00 | M33782.1 | NT | Human TFE3 protein mRNA, partial cds |
| 2045 | 15186 | 28295 | 3.24 | 0.0E+00 | AW193024.1 | EST_HUMAN | x89b01.x1 NCLCGAP_Pan1 Homo sapiens cDNA clone IMAGE:2679813 3' |
| 2045 | 15186 | 28296 | 3.24 | 0.0E+00 | AW193024.1 | EST_HUMAN | x89b01.x1 NCLCGAP_Pan1 Homo sapiens cDNA clone IMAGE:2679813 3' |
| 2046 | 15187 | 28297 | 9.68 | 0.0E+00 | 6912457 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 2046 | 15187 | 28298 | 9.68 | 0.0E+00 | 6912457 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 2048 | 15188 | 28300 | 1.63 | 0.0E+00 | AB011149.1 | NT | Homo sapiens mRNA for KIAA0577 protein, complete cds |
| 2049 | 15190 | 28301 | 1.09 | 0.0E+00 | Z47556.1 | NT | H. sapiens genes for semogelin I and semogelin II |
| 2049 | 15190 | 28302 | 1.09 | 0.0E+00 | Z47556.1 | NT | H. sapiens genes for semogelin I and semogelin II |
| 2056 | 15197 | 28311 | 5.04 | 0.0E+00 | AB040948.1 | NT | Homo sapiens mRNA for KIAA1513 protein, partial cds |
| 2078 | 15218 | 28337 | 1.85 | 0.0E+00 | AF273841.1 | NT | Homo sapiens SMCY (SMCY) gene, complete cds |
| 2078 | 15218 | 28338 | 1.85 | 0.0E+00 | AF273841.1 | NT | Homo sapiens SMCY (SMCY) gene, complete cds |
| 2109 | 15247 | 28368 | 1.63 | 0.0E+00 | 8394546 | NT | Homo sapiens chromosome 21 open reading frame 7 (YGB1), mRNA |
| 2112 | 15260 | 28370 | 0.98 | 0.0E+00 | 7708742 | NT | Homo sapiens TP53TG3a (TP53TG3a), mRNA |
| 2117 | 15255 | 28374 | 35.36 | 0.0E+00 | BE743215.1 | EST_HUMAN | 601573895F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3835198 5' |
| 2117 | 15255 | 28375 | 35.36 | 0.0E+00 | BE743215.1 | EST_HUMAN | 601573895F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3835198 5' |
| | | | | | | | Homo sapiens coagulation factor IX (plasma thromboplastin component, Christmas disease, hemophilia B) (FX) mRNA |
| 2119 | 15257 | 28376 | 1.02 | 0.0E+00 | 4503848 | NT | |
| 2121 | 15268 | 28378 | 57.93 | 0.0E+00 | AU140831 | EST_HUMAN | AU140831 PLACE4 Homo sapiens cDNA clone PLACE4000321 5' |
| 2122 | 14612 | 27694 | 0.87 | 0.0E+00 | 7705565 | NT | Homo sapiens KIAA1114 protein (KIAA1114), mRNA |
| 2122 | 14612 | 27695 | 0.97 | 0.0E+00 | 7705565 | NT | Homo sapiens KIAA1114 protein (KIAA1114), mRNA |
| 2124 | 15260 | 28380 | 2.59 | 0.0E+00 | AA077589.1 | EST_HUMAN | 7B22E10 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA clone 7B22E10 |
| 2124 | 15260 | 28381 | 2.59 | 0.0E+00 | AA077589.1 | EST_HUMAN | 7B22E10 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA clone 7B22E10 |
| 2126 | 15262 | | 3.79 | 0.0E+00 | 7657468 | NT | Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA. |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 2128 | 15284 | | 1.48 | 0.0E+00 | 4585863 | NT | Homo sapiens phosphodiesterase 6A, cGMP-specific, rod, alpha (PDE6A), mRNA |
| 2129 | 15285 | 28384 | 2.9 | 0.0E+00 | Z42399.1 | EST_HUMAN | HSC01C021 normalized infant brain cDNA Homo sapiens cDNA clone c-01c02 |
| 2131 | 15297 | | 2.38 | 0.0E+00 | A1244247.1 | EST_HUMAN | q90f08.x1 NCI_CGAP_U12 Homo sapiens cDNA clone IMAGE:1888871 3' similar to contains Alu repetitive element |
| 2136 | 15272 | 28383 | 4.37 | 0.0E+00 | BE871225.1 | EST_HUMAN | 601483146F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3887747 5' |
| 2138 | 15274 | 28395 | 2.25 | 0.0E+00 | BF315325.1 | EST_HUMAN | 601602604F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4135320 5' |
| 2138 | 15274 | 28398 | 2.25 | 0.0E+00 | BF315325.1 | EST_HUMAN | 601602604F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4135320 5' |
| 2144 | 15280 | 28404 | 3.6 | 0.0E+00 | BE697125.1 | EST_HUMAN | RC3-CT0413-270700-022-410 CT0413 Homo sapiens cDNA |
| 2144 | 15280 | 28405 | 3.6 | 0.0E+00 | BE697125.1 | EST_HUMAN | RC3-CT0413-270700-022-410 CT0413 Homo sapiens cDNA |
| 2152 | 15288 | 28414 | 3.43 | 0.0E+00 | L00820.1 | NT | Human plasma membrane calcium ATPase isoform 2 (APT2B2) mRNA, complete cds |
| 2152 | 15288 | 28415 | 3.43 | 0.0E+00 | L00820.1 | NT | Human plasma membrane calcium ATPase isoform 2 (APT2B2) mRNA, complete cds |
| 2153 | 15289 | 28416 | 1.11 | 0.0E+00 | AJ237708.1 | NT | Homo sapiens mRNA for CDC2L6 protein kinase, (CDC2L6 gene), isoform 1 |
| 2158 | 15294 | 28420 | 1.16 | 0.0E+00 | 4768489 | NT | Homo sapiens GTP binding protein 1 (GTPBP1) mRNA |
| 2162 | 15298 | 28423 | 1.94 | 0.0E+00 | BE500995.1 | EST_HUMAN | 7a34c02.x1 NCI_CGAP_G06 Homo sapiens cDNA clone IMAGE:3220810 3' similar to SW:DTD_HUMAN |
| 2182 | 15317 | | 3.17 | 0.0E+00 | BE767664.1 | EST_HUMAN | P50443 SULFATE TRANSPORTER ; |
| 2183 | 15318 | | 1.26 | 0.0E+00 | AF018939.1 | NT | QV1-GN0065-140800-318-c10 GN0065 Homo sapiens cDNA |
| 2185 | 15320 | 28446 | 4.94 | 0.0E+00 | BF027592.1 | EST_HUMAN | Homo sapiens X-linked juvenile retinoschisis protein (XLRST) gene, exon 6 and complete cds |
| 2186 | 15321 | 28447 | 1.5 | 0.0E+00 | BE072624.1 | EST_HUMAN | 601672066F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3954785 5' |
| 2188 | 15323 | 28448 | 1.29 | 0.0E+00 | AF240786.1 | NT | PM0-BT0547-210300-004-F04 BT0547 Homo sapiens cDNA |
| 2180 | 15325 | 28450 | 3.41 | 0.0E+00 | AW752708.1 | EST_HUMAN | Homo sapiens glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 2192 | 15327 | 28452 | 6.48 | 0.0E+00 | A1904640.1 | EST_HUMAN | IL3-CT0219-271099-022-G10 CT0219 Homo sapiens cDNA |
| 2192 | 15327 | 28453 | 6.48 | 0.0E+00 | A1904640.1 | EST_HUMAN | QV-BT065-020399-092 BT065 Homo sapiens cDNA |
| 2225 | 15359 | | 1.08 | 0.0E+00 | 7657282 | NT | QV-BT065-020399-092 BT065 Homo sapiens cDNA |
| 2249 | 15382 | | 1.62 | 0.0E+00 | L14787.1 | NT | Homo sapiens potassium large conductance calcium-activated channel, subfamily M, beta member 3-like (KCNNM3L), mRNA |
| 2259 | 15392 | 28518 | 1.26 | 0.0E+00 | BE274696.1 | EST_HUMAN | Human DNA-binding protein mRNA, 3' end |
| 2261 | 15394 | 28521 | 0.94 | 0.0E+00 | DB7685.1 | NT | 60112338F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3346888 5' |
| 2262 | 15395 | 28522 | 23.12 | 0.0E+00 | AV738288.1 | EST_HUMAN | Human mRNA for KIAA0244 gene, partial cds |
| 2262 | 15395 | 28523 | 23.12 | 0.0E+00 | AV738288.1 | EST_HUMAN | AV738288 CB Homo sapiens cDNA clone CBNBDE08 5' |
| 2264 | 15397 | 28525 | 2.57 | 0.0E+00 | AA931691.1 | EST_HUMAN | AV738288 CB Homo sapiens cDNA clone CBNBDE08 5' |
| 2288 | 15401 | 28528 | 24.38 | 0.0E+00 | BF344434.1 | EST_HUMAN | cc32601.s1 NCI_CGAP_Lu8 Homo sapiens cDNA clone IMAGE:1587886 3' |
| 2288 | 15401 | 28528 | 24.38 | 0.0E+00 | BF344434.1 | EST_HUMAN | 602014828F1 NCI_CGAP_Brm4 Homo sapiens cDNA clone IMAGE:4150734 6' |
| 2288 | 15402 | 28530 | 40.14 | 0.0E+00 | BE748899.1 | EST_HUMAN | 601572186F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:3839012 3' |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 2272 | 15405 | 28533 | 5.58 | 0.0E+00 | BF377897.1 | EST_HUMAN | CM1-TN0141-250900-439-b08 TN0141 Homo sapiens cDNA |
| 2272 | 15405 | 28534 | 5.68 | 0.0E+00 | BF377897.1 | EST_HUMAN | CM1-TN0141-250900-439-b08 TN0141 Homo sapiens cDNA |
| 2276 | 16059 | 28539 | 4.08 | 0.0E+00 | BF373617.1 | EST_HUMAN | 601800281F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4128922 5' |
| 2276 | 16411 | 28542 | 3.13 | 0.0E+00 | BE018750.1 | EST_HUMAN | b684602.y1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3049082 5' similar to TR:Q15170 Q15170 TRANSCRIPTION FACTOR S-II-RELATED PROTEIN ; |
| 2281 | 16413 | 28544 | 1.68 | 0.0E+00 | AA042813.1 | EST_HUMAN | z63c07.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:486540 3' similar to gb:X65857_cds1 OLFACTORY RECEPTOR-LIKE PROTEIN HGMPO7E (HUMAN); |
| 2281 | 15413 | 28545 | 1.68 | 0.0E+00 | AA042813.1 | EST_HUMAN | z63c07.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:486540 3' similar to gb:X65857_cds1 OLFACTORY RECEPTOR-LIKE PROTEIN HGMPO7E (HUMAN); |
| 2289 | 16421 | 28553 | 3.06 | 0.0E+00 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 2289 | 15421 | 28554 | 3.06 | 0.0E+00 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 2290 | 16422 | 28555 | 3.72 | 0.0E+00 | 7682401 | NT | Homo sapiens KIAA0952 protein (KIAA0952), mRNA |
| 2290 | 15422 | 28556 | 3.72 | 0.0E+00 | 7682401 | NT | Homo sapiens KIAA0952 protein (KIAA0952), mRNA |
| 2295 | 15427 | 28561 | 2.34 | 0.0E+00 | U36284.1 | NT | Human beta-prime-adaptin (BAM22) gene, exon 18 |
| 2296 | 15428 | 28561 | 1.02 | 0.0E+00 | AA282281.1 | EST_HUMAN | z12b10.1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:712891 5' |
| 2313 | 15445 | 28578 | 7.92 | 0.0E+00 | 4557556 | NT | Homo sapiens E1A binding protein p300 (EP300) mRNA |
| 2320 | 15452 | 28584 | 2.83 | 0.0E+00 | 7682401 | NT | Homo sapiens KIAA0952 protein (KIAA0952), mRNA |
| 2327 | 15459 | 28592 | 3.44 | 0.0E+00 | BE993281.1 | EST_HUMAN | 601433625F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918607 5' |
| 2331 | 15463 | 28596 | 1.51 | 0.0E+00 | BE905663.1 | EST_HUMAN | 601495208F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3897457 5' |
| 2331 | 15463 | 28597 | 1.51 | 0.0E+00 | BE905663.1 | EST_HUMAN | 601495208F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3897457 5' |
| 2333 | 15464 | 28599 | 1.83 | 0.0E+00 | AB037784.1 | NT | Homo sapiens mRNA for KIAA1363 protein, partial cds |
| 2375 | 15506 | 28632 | 4.35 | 0.0E+00 | 11545748 | NT | Homo sapiens differentially expressed in FDCP (mouse homolog) 8 (DEF8), mRNA |
| 2375 | 15506 | 28633 | 4.35 | 0.0E+00 | 11545748 | NT | Homo sapiens differentially expressed in FDCP (mouse homolog) 8 (DEF8), mRNA |
| 2376 | 15507 | 28634 | 2.87 | 0.0E+00 | A078404.1 | EST_HUMAN | oz09c07.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1674828 3' |
| 2378 | 15509 | 28636 | 2.85 | 0.0E+00 | AA429001.1 | EST_HUMAN | z778a11.1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1674828 3' |
| 2378 | 15509 | 28637 | 2.85 | 0.0E+00 | AA429001.1 | EST_HUMAN | z778a11.1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1674828 3' |
| 2380 | 15511 | 28639 | 1.82 | 0.0E+00 | BF347039.1 | EST_HUMAN | 602021848F1 NCI_CGAP_Bm87 Homo sapiens cDNA clone IMAGE:759740 5' |
| 2385 | 15516 | 28645 | 1.33 | 0.0E+00 | AB020717.1 | NT | Homo sapiens mRNA for KIAA0910 protein, partial cds |
| 2385 | 15516 | 28646 | 1.33 | 0.0E+00 | AB020717.1 | NT | Homo sapiens mRNA for KIAA0910 protein, partial cds |
| 2386 | 15517 | 28647 | 2.34 | 0.0E+00 | 6325468 | NT | Homo sapiens flavin containing monooxygenase 3 (FMO3), mRNA |
| 2393 | 15524 | 28653 | 2.36 | 0.0E+00 | BE876095.1 | EST_HUMAN | 722a02.x1 NCI_CGAP_GCL1 Homo sapiens cDNA clone IMAGE:3295370 3' similar to TR:O94839 O94839 KIAA0857 PROTEIN ; |
| 2396 | 15527 | 28655 | 5.46 | 0.0E+00 | AF044571.1 | NT | Homo sapiens phosphatase kinase alpha subunit (PHKA2) gene, exon 32 |
| 2397 | 15528 | 28658 | 2.61 | 0.0E+00 | A1625542.1 | EST_HUMAN | y5/c08.x1 NCI_CGAP_U12 Homo sapiens cDNA clone IMAGE:2283182 3' |

Page 498 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 2399 | 15530 | 28657 | 1.5 | 0.0E+00 | AB011399.1 | NT | Homo sapiens gene for AF-4, complete cds |
| 2402 | 15533 | 28659 | 2.22 | 0.0E+00 | 7682401 | NT | Homo sapiens KIAA0952 protein (KIAA0952), mRNA |
| 2402 | 15533 | 28660 | 2.22 | 0.0E+00 | 7682401 | NT | Homo sapiens KIAA0952 protein (KIAA0952), mRNA |
| 2405 | 15536 | 28663 | 3.83 | 0.0E+00 | 5803178 | NT | Homo sapiens sperm specific antigen 2 (SSFA2), mRNA |
| 2405 | 15536 | 28664 | 3.83 | 0.0E+00 | 5803178 | NT | Homo sapiens sperm specific antigen 2 (SSFA2), mRNA |
| 2424 | 15553 | 28679 | 3.04 | 0.0E+00 | 5174678 | NT | Homo sapiens signal regulatory protein, beta, 1 (SIRP-BETA-1), mRNA |
| 2428 | 15558 | 28683 | 3.56 | 0.0E+00 | AU131142.1 | EST_HUMAN | AU131142 NT2RP3 Homo sapiens cDNA clone NT2RP302004 5' |
| 2428 | 15558 | 28684 | 8.82 | 0.0E+00 | BE794026.1 | EST_HUMAN | Homo sapiens KIAA0244 protein (KIAA0244), mRNA |
| 2431 | 15559 | 28685 | 1.39 | 0.0E+00 | 4768497 | NT | Homo sapiens hexose-6-phosphate dehydrogenase (glucose 1-dehydrogenase) (H6PD), mRNA |
| 2431 | 15559 | 28686 | 1.39 | 0.0E+00 | 4768497 | NT | Homo sapiens hexose-6-phosphate dehydrogenase (glucose 1-dehydrogenase) (H6PD), mRNA |
| 2432 | 15560 | | 7.14 | 0.0E+00 | AF280107.1 | NT | Homo sapiens cytochrome P450 polypeptide 43 (CYP3A43) gene, partial cds; cytochrome P450 polypeptide 4 (CYP3A4) and cytochrome P450 polypeptide 7 (CYP3A7) genes, complete cds; and cytochrome P450 polypeptide 6 (CYP3A5) gene, partial cds |
| 2434 | 15562 | 28688 | 10.61 | 0.0E+00 | AU118082.1 | EST_HUMAN | AU118082 HEMBA1 Homo sapiens cDNA clone HEMBA1002839 5' |
| 2434 | 15562 | 28689 | 10.61 | 0.0E+00 | AU118082.1 | EST_HUMAN | AU118082 HEMBA1 Homo sapiens cDNA clone HEMBA1002839 5' |
| 2434 | 15562 | 28690 | 10.61 | 0.0E+00 | AU118082.1 | EST_HUMAN | AU118082 HEMBA1 Homo sapiens cDNA clone HEMBA1002839 5' |
| 2452 | 15560 | | 1.03 | 0.0E+00 | BE814424.1 | EST_HUMAN | MR0-BN0070-090600-029-d12 BN0070 Homo sapiens cDNA |
| 2485 | 15812 | 28736 | 1.14 | 0.0E+00 | AU119582.1 | EST_HUMAN | AU119582 HEMBA1 Homo sapiens cDNA clone HEMBA1006155 5' |
| 2487 | 15814 | | 4.63 | 0.0E+00 | AU142035.1 | EST_HUMAN | ox80b02.x1 Soares_NHMPU_S1 Homo sapiens cDNA clone IMAGE:1680883 3' similar to TR:008882 |
| 2488 | 15816 | 28737 | 0.94 | 0.0E+00 | 8923620 | NT | O08602 230KDA PHOSPHATIDYLINOSITOL 4-KINASE |
| 2492 | 15819 | | 1.35 | 0.0E+00 | BE89605.1 | EST_HUMAN | Homo sapiens hypothetical protein FLJ20693 (FLJ20693), mRNA |
| 2503 | 15830 | | 2.22 | 0.0E+00 | AB005622.1 | EST_HUMAN | 60143208F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918168 5' |
| 2505 | 15832 | 28752 | 6.05 | 0.0E+00 | 6006002 | NT | AB005622 HeLa cDNA (T.Noma) Homo sapiens cDNA similar to adenylate kinase isozyme 2 |
| 2510 | 15836 | 28756 | 1.89 | 0.0E+00 | D85606.1 | NT | Homo sapiens glutamate receptor, ionotropic, N-methyl D-aspartate 2A (GRIN2A) mRNA |
| 2520 | 15846 | 28769 | 2.42 | 0.0E+00 | AF108275.1 | NT | Homo sapiens gene for cholecystikinin type-A receptor, complete cds |
| 2524 | 15849 | 28773 | 0.98 | 0.0E+00 | BF345274.1 | EST_HUMAN | Homo sapiens gene for cholecystikinin type-A receptor, complete cds |
| 2530 | 15855 | 28780 | 3.84 | 0.0E+00 | U13866.1 | NT | Homo sapiens immunoglobulin-like transcript 10 variant 4 (ILT1c) gene, exon 6 |
| 2538 | 15863 | 28786 | 1.02 | 0.0E+00 | U13866.1 | NT | Homo sapiens protein-coupled receptor (GPR1) gene, complete cds |
| 2538 | 15863 | 28787 | 1.02 | 0.0E+00 | U13866.1 | NT | Homo sapiens protein-coupled receptor (GPR1) gene, complete cds |
| 2539 | 15864 | 28788 | 28.11 | 0.0E+00 | BF569144.1 | EST_HUMAN | 80218458T1 NIH_MGC_42 Homo sapiens cDNA clone IMAGE:4300383 3' |
| 2547 | 15872 | 28796 | 4.18 | 0.0E+00 | AW466922.1 | EST_HUMAN | ha04h04.x1 NC1_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2872769 3' |

Page 500 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 2700 | 15819 | 28935 | 2.52 | 0.0E+00 | 4504686 | NT | Homo sapiens IMP (inosine monophosphate) dehydrogenase 1 (IMPDH1) mRNA |
| 2710 | 15928 | | 1.16 | 0.0E+00 | U78027.1 | NT | Homo sapiens Bruton's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44L) and FTP3 (FTP3) genes, complete cds |
| 2711 | 15929 | 28942 | 5.67 | 0.0E+00 | AF173227.1 | NT | Homo sapiens guanylate cyclase-activating protein 2 (GUCA1B) gene, exon 1 |
| 2715 | 15933 | 28943 | 1.07 | 0.0E+00 | AB011108.1 | NT | Homo sapiens mRNA for KIAA0536 protein, partial cds |
| 2716 | 15933 | 28943 | 0.86 | 0.0E+00 | AU133385.1 | EST_HUMAN | AU133385 NT2RP4 Homo sapiens cDNA clone NT2RP4001964 5' |
| 2718 | 15936 | 28946 | 1.15 | 0.0E+00 | AU130403.1 | EST_HUMAN | AU130403 NT2RP3 Homo sapiens cDNA clone NT2RP3000779 5' |
| 2721 | 15939 | 28949 | 1.15 | 0.0E+00 | AU130403.1 | EST_HUMAN | AU130403 NT2RP3 Homo sapiens cDNA clone NT2RP3000779 5' |
| 2721 | 15939 | 28950 | 1.66 | 0.0E+00 | AW887015.1 | EST_HUMAN | RC1-OT0086-220300-011-067 OT0086 Homo sapiens cDNA |
| 2724 | 15942 | 28953 | 4.83 | 0.0E+00 | BE383166.1 | EST_HUMAN | B01288714F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3628923 5' |
| 2727 | 15945 | 28958 | 2.8 | 0.0E+00 | BE531263.1 | EST_HUMAN | B01278373F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3610287 5' |
| 2728 | 15946 | | 1 | 0.0E+00 | AB03732.1 | NT | Homo sapiens mRNA for KIAA1311 protein, partial cds |
| 2763 | 15978 | 28987 | 11.89 | 0.0E+00 | AA316723.1 | EST_HUMAN | EST189414 HCC cell line (metastasis to liver in mouse) II Homo sapiens cDNA 5' end similar to ribosomal protein L29 |
| 2785 | 16001 | | 4.04 | 0.0E+00 | U98253.1 | NT | Human beta-prime-adaptin (BAM22) gene, exon 5 |
| 2789 | 16006 | 29013 | 3.72 | 0.0E+00 | AF110763.1 | NT | Homo sapiens skeletal muscle LIM-protein 1 (FHL1) gene, complete cds |
| 2791 | 16007 | 29015 | 2.32 | 0.0E+00 | AB051828.1 | NT | Homo sapiens hG28K mRNA for GTP-binding protein like 1, complete cds |
| 2792 | 16008 | 29016 | 11.38 | 0.0E+00 | BE786376.1 | EST_HUMAN | B0159199F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3946993 5' |
| 2797 | 16012 | 29020 | 17.3 | 0.0E+00 | BE563433.1 | EST_HUMAN | B01335485F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3689664 5' |
| 2800 | 16072 | 29024 | 3.28 | 0.0E+00 | AV721647.1 | EST_HUMAN | AV721647 HTB Homo sapiens cDNA clone HTBBYE09 5' |
| 2801 | 15915 | | 2.18 | 0.0E+00 | 5174488 | NT | Homo sapiens spermatogenesis associated PD1 (KIAA0757) mRNA |
| 2803 | 15917 | 29027 | 2.18 | 0.0E+00 | 5174488 | NT | Homo sapiens spermatogenesis associated PD1 (KIAA0757) mRNA |
| 2803 | 15917 | 29028 | 2.21 | 0.0E+00 | AF200185.1 | NT | Homo sapiens hypertension-related calcium-regulated gene mRNA, complete cds |
| 2804 | 15918 | 29029 | 47.74 | 0.0E+00 | AF200185.1 | EST_HUMAN | AV651068 GLC Homo sapiens cDNA clone GLCCLD07 3' |
| 2805 | 15919 | | 5.84 | 0.0E+00 | AF651068.1 | EST_HUMAN | AV651068 GLC Homo sapiens cDNA clone GLCCLD07 3' |
| 2806 | 15920 | 29030 | 5.84 | 0.0E+00 | BF377897.1 | EST_HUMAN | CM1-TN0141-250900-439-b08 TN0141 Homo sapiens cDNA |
| 2806 | 15920 | 29031 | 1.15 | 0.0E+00 | BF377897.1 | EST_HUMAN | CM1-TN0141-250900-439-b08 TN0141 Homo sapiens cDNA |
| 2810 | 15924 | 29034 | 1.15 | 0.0E+00 | 4757863 | NT | Homo sapiens cerebellar degeneration-related protein (34HD) (CDR1) mRNA |
| 2810 | 15924 | 29036 | 1.15 | 0.0E+00 | 4757963 | NT | Homo sapiens cerebellar degeneration-related protein (34HD) (CDR1) mRNA |
| 2813 | 15927 | 29039 | 21.96 | 0.0E+00 | BE747193.1 | EST_HUMAN | B01580903F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3929472 5' |
| 2814 | 15928 | 29040 | 1.05 | 0.0E+00 | N44974.1 | EST_HUMAN | YC5h10.11 Soares melanocyte 2NblHM Homo sapiens cDNA clone IMAGE:273283 5' similar to PIR-A45773 |
| 2816 | 15930 | 29042 | 1.15 | 0.0E+00 | BE176836.1 | EST_HUMAN | AA5773 leish protein, long form - fruit fly |
| 2827 | 15941 | | 1.13 | 0.0E+00 | AL163201.2 | NT | RC4-HT0587-170300-012-011 HT0587 Homo sapiens cDNA |
| 2828 | 15942 | 29052 | 3.19 | 0.0E+00 | BF514110.1 | EST_HUMAN | RC4-HT0587-170300-012-011 HT0587 Homo sapiens cDNA |
| | | | | | | | Human sapiens chromosome 21 segment HS21C001 |
| | | | | | | | U1-H-BW1-aww-e-07-O-U1.51 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3071340 3' |

Page 501 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO. | Exon SEQ ID NO. | ORF SEQ ID NO. | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 2835 | 15949 | | 1.87 | 0.0E+00 | 4503098 | NT | Homo sapiens chondroitin sulfate proteoglycan 4 (melanoma-associated) (CSPG4), mRNA |
| 2841 | 15955 | 29082 | 1.08 | 0.0E+00 | 7705276 | NT | Homo sapiens angiotensin-3 (ANG-3), mRNA |
| 2841 | 15955 | 29063 | 1.08 | 0.0E+00 | 7706276 | NT | Homo sapiens angiotensin-3 (ANG-3), mRNA |
| 2842 | 15956 | 29084 | 5.05 | 0.0E+00 | BF677694.1 | EST_HUMAN | Homo sapiens cDNA clone IMAGE:4248915 5' |
| 2848 | 15962 | 29072 | 1.33 | 0.0E+00 | 7427522 | NT | Homo sapiens protein tyrosine phosphatase, receptor type, T (PTPRT), mRNA |
| 2852 | 15966 | 29075 | 17.21 | 0.0E+00 | AV725534.1 | EST_HUMAN | AV725534 HTC Homo sapiens cDNA clone HTCCCA03 5' |
| 2852 | 15966 | 29076 | 17.21 | 0.0E+00 | AV725534.1 | EST_HUMAN | AV725534 HTC Homo sapiens cDNA clone HTCCCA03 5' |
| 2854 | 15988 | | 14.75 | 0.0E+00 | AI879163.1 | EST_HUMAN | au55d04.Y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2518633 5' similar to SW_R13A_HUMAN P40429 60S RIBOSOMAL PROTEIN L13A.1 |
| 2857 | 15971 | 29081 | 2.14 | 0.0E+00 | BF630681.1 | EST_HUMAN | 602071657F1 NIH_MGC_85 Homo sapiens cDNA clone IMAGE:4214679 5' |
| 2858 | 15972 | 29082 | 71.97 | 0.0E+00 | BE872768.1 | EST_HUMAN | 601450612F1 NIH_MGC_85 Homo sapiens cDNA clone IMAGE:3854642 5' |
| 2860 | 15974 | 29083 | 2.42 | 0.0E+00 | AU131494.1 | EST_HUMAN | AU131494 NT2RP3 Homo sapiens cDNA clone NT2RP3002672 5' |
| 2860 | 15974 | 29084 | 2.42 | 0.0E+00 | AU131494.1 | EST_HUMAN | AU131494 NT2RP3 Homo sapiens cDNA clone NT2RP3002672 5' |
| 2861 | 15975 | 29085 | 64.08 | 0.0E+00 | BE300344.1 | EST_HUMAN | 600944784F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2860806 5' |
| 2861 | 15975 | 29086 | 64.08 | 0.0E+00 | BE300344.1 | EST_HUMAN | 600944784F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2860806 5' |
| 2867 | 13415 | 28444 | 6.26 | 0.0E+00 | S78830.1 | NT | glycoprotein D=Duffy group antigen [human, blood, Genomic DNA, 3088 nt] |
| 2870 | 15982 | | 1.84 | 0.0E+00 | AB033281.1 | NT | Homo sapiens BTROP2 mRNA for F-box and WD-repeats protein isoform C, complete cds |
| 2876 | 13933 | 28976 | 1.89 | 0.0E+00 | AF264750.1 | NT | Homo sapiens ALR-like protein mRNA, partial cds |
| 2876 | 13933 | 28979 | 1.89 | 0.0E+00 | AF264750.1 | NT | Homo sapiens ALR-like protein mRNA, partial cds |
| 2880 | 14230 | 27287 | 2.04 | 0.0E+00 | 4503202 | NT | Homo sapiens cytochrome P450, subfamily 1 (dioxin-inducible), polypeptide 1 (glaucoma 3, primary infantile) (CYP1B1) mRNA |
| 2880 | 14230 | | 2.04 | 0.0E+00 | 4503202 | NT | Homo sapiens cytochrome P450, subfamily 1 (dioxin-inducible), polypeptide 1 (glaucoma 3, primary infantile) (CYP1B1) mRNA |
| 2897 | 16076 | 27288 | 2.04 | 0.0E+00 | 4503202 | NT | Homo sapiens cytochrome P450, subfamily 1 (dioxin-inducible), polypeptide 1 (glaucoma 3, primary infantile) (CYP1B1) mRNA |
| 2897 | 16076 | 29094 | 3.73 | 0.0E+00 | X85980.1 | NT | H. sapiens acetyl hydroxymethyltransferase pseudogene |
| 2898 | 16077 | | 1.28 | 0.0E+00 | AF088824.1 | NT | Homo sapiens 5-aminolevulinic acid synthase 2 (ALAS2) gene, complete cds |
| 2900 | 16079 | | 1.91 | 0.0E+00 | AB040960.1 | NT | Homo sapiens mRNA for KIAA1527 protein, partial cds |
| 2907 | 16085 | 29089 | 4.25 | 0.0E+00 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 2911 | 16089 | 29102 | 6.5 | 0.0E+00 | M80902.1 | NT | Human AHNK nucleoprotein mRNA, 5' end |
| 2914 | 16092 | 29104 | 0.93 | 0.0E+00 | BE154504.1 | EST_HUMAN | FM0-HT0343-281289-003-e02 HT0343 Homo sapiens cDNA |
| 2914 | 16092 | 29105 | 0.93 | 0.0E+00 | BE154504.1 | EST_HUMAN | FM0-HT0343-281289-003-e02 HT0343 Homo sapiens cDNA |
| 2916 | 16094 | | 2.05 | 0.0E+00 | X73428.1 | NT | H. sapiens l33 gene for HLH type transcription factor |
| 2916 | 16094 | | 2.05 | 0.0E+00 | X73428.1 | NT | H. sapiens l33 gene for HLH type transcription factor |
| 2918 | 16087 | 29108 | 1.3 | 0.0E+00 | 7019584 | NT | Homo sapiens chromosome 21 segment HS21C068 |
| 2918 | 16087 | 29109 | 1.3 | 0.0E+00 | 7019584 | NT | Homo sapiens zinc finger protein 221 (ZNF221), mRNA |
| 2918 | 16087 | 29109 | 1.3 | 0.0E+00 | 7019584 | NT | Homo sapiens zinc finger protein 221 (ZNF221), mRNA |

Page 502 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 2919 | 16097 | 29110 | 1.3 | 0.0E+00 | 7018594 | NT | Homo sapiens zinc finger protein 221 (ZNF221), mRNA |
| 2921 | 16099 | 29111 | 15.84 | 0.0E+00 | M88478.1 | NT | Human transglutaminase mRNA, complete cds |
| 2923 | 16103 | 29117 | 30.49 | 0.0E+00 | D50657.1 | NT | Homo sapiens geminin-cytosolic actin (ACTGP3) pseudogene |
| 2925 | 16103 | 29118 | 30.49 | 0.0E+00 | D50657.1 | NT | Homo sapiens geminin-cytosolic actin (ACTGP3) pseudogene |
| 2927 | 16106 | 29121 | 3.42 | 0.0E+00 | AL098857.1 | NT | Novel human mRNA from chromosome 1, which has similarities to BAT2 genes |
| 2930 | 16107 | | 6.12 | 0.0E+00 | Y10658.1 | NT | H. sapiens mRNA for nuclear DNA helicase II |
| 2931 | 16108 | | 1.13 | 0.0E+00 | AF152303.1 | NT | Homo sapiens protocadherin alpha C1 (PCDH-alpha-C1), mRNA, complete cds |
| 2932 | 16109 | 29122 | 74.83 | 0.0E+00 | 4503470 | NT | Homo sapiens eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) mRNA |
| 2933 | 16109 | 29123 | 74.83 | 0.0E+00 | 4503470 | NT | Homo sapiens eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) mRNA |
| 2944 | 16121 | 29134 | 2.54 | 0.0E+00 | 4507280 | NT | Homo sapiens eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) mRNA |
| 2947 | 16124 | 29138 | 1.19 | 0.0E+00 | AL047698.1 | EST_HUMAN | Homo sapiens eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) mRNA |
| 2948 | 16125 | 29139 | 0.86 | 0.0E+00 | 7661883 | NT | DKFZp586G0621_r1 586 (synonym: hute1) Homo sapiens cDNA clone DKFZp586G0621 |
| 2948 | 16125 | 29140 | 0.96 | 0.0E+00 | 7661883 | NT | Homo sapiens KIAA0054 gene product; Helicase (KIAA0054), mRNA |
| 2949 | 16126 | | 2.44 | 0.0E+00 | 4503098 | NT | Homo sapiens chondroin sulfate proteoglycan 4 (melanoma-associated) (CSPG4), mRNA |
| 2952 | 16129 | 29142 | 5.16 | 0.0E+00 | BE081898.1 | EST_HUMAN | QV2-BT0636-130400-138-H03 BT0638 Homo sapiens cDNA |
| 2952 | 16129 | 29143 | 5.16 | 0.0E+00 | BE081898.1 | EST_HUMAN | QV2-BT0636-130400-138-H03 BT0638 Homo sapiens cDNA |
| 2958 | 16135 | 29151 | 0.77 | 0.0E+00 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 2958 | 16135 | 29152 | 0.77 | 0.0E+00 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 2961 | 16138 | 29156 | 2.3 | 0.0E+00 | AL163206.2 | NT | Homo sapiens chromosome 21 segment HS21C006 |
| 2961 | 16138 | 29157 | 2.3 | 0.0E+00 | AL163206.2 | NT | Homo sapiens chromosome 21 segment HS21C006 |
| 2962 | 16139 | 29169 | 1.3 | 0.0E+00 | AA215579.1 | EST_HUMAN | Homo sapiens cDNA clone IMAGE:883517 3' similar to contains Alu |
| 2969 | 16145 | | 3.89 | 0.0E+00 | Y18210.1 | NT | z98b1.1.s1 NCI_CGAP_G031 Homo sapiens cDNA clone IMAGE:2167981 3' similar to TR:O16247 |
| 2972 | 16148 | 29187 | 1.05 | 0.0E+00 | 4758279 | NT | repetitive element; |
| 2974 | 16160 | 29170 | 25.86 | 0.0E+00 | 4503470 | NT | Homo sapiens EphA4 (EPHA4) mRNA |
| 2975 | 16161 | | 1.15 | 0.0E+00 | AI561002.1 | EST_HUMAN | Homo sapiens eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) mRNA |
| 2975 | 16161 | 29171 | 1.15 | 0.0E+00 | AI561002.1 | EST_HUMAN | In18d07.x1 NCI_CGAP_Bm26 Homo sapiens cDNA clone IMAGE:2167981 3' similar to TR:O16247 |
| 2975 | 16161 | 29172 | 1.15 | 0.0E+00 | AI561002.1 | EST_HUMAN | O16247 F44E7.2 PROTEIN.; |
| 2977 | 16153 | 29174 | 1.18 | 0.0E+00 | P52740 | SWISSPROT | ZINC FINGER PROTEIN 132 |
| 2978 | 16154 | 29175 | 1.04 | 0.0E+00 | AF152338.1 | NT | Homo sapiens protocadherin gamma C4 (PCDH-gamma-C4) mRNA, complete cds |
| 2984 | 16170 | 29187 | 3.4 | 0.0E+00 | AB033093.1 | NT | Homo sapiens mRNA for KIAA1257 protein, partial cds |
| 2984 | 16170 | 29188 | 3.4 | 0.0E+00 | AB033093.1 | NT | Homo sapiens mRNA for KIAA1257 protein, partial cds |
| 2984 | 16170 | 29189 | 6.2 | 0.0E+00 | AB040941.1 | NT | Homo sapiens mRNA for KIAA1508 protein, partial cds |

Page 503 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|-------------------------------|---|
| 2895 | 16171 | 28190 | 6.2 | 0.0E+00 | AB040941.1 | Homo sapiens mRNA for KIAA1608 protein, partial cds |
| 2898 | 16174 | 28193 | 3.31 | 0.0E+00 | 7661903 | Homo sapiens KIAA0100 gene product (KIAA0100), mRNA |
| 2898 | 16174 | 28194 | 3.31 | 0.0E+00 | 7661903 | Homo sapiens KIAA0100 gene product (KIAA0100), mRNA |
| 2899 | 16175 | 28195 | 4.93 | 0.0E+00 | 5174574 | Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 4 (MLLT4) mRNA |
| 2899 | 16175 | 28196 | 4.93 | 0.0E+00 | 5174574 | Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 4 (MLLT4) mRNA |
| 3003 | 16178 | 28199 | 1.29 | 0.0E+00 | BF110702.1 | 7n40d03 x1 NCL CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3687028 3' similar to TR:Q9VLN1 |
| 3003 | 16178 | 28200 | 1.29 | 0.0E+00 | BF110702.1 | Q9VLN1 CG17293 PROTEIN ; |
| 3011 | 16187 | 28211 | 3.91 | 0.0E+00 | 4505084 | Q9VLN1 CG17293 PROTEIN ; |
| 3011 | 16187 | 28212 | 3.91 | 0.0E+00 | 4505084 | Homo sapiens melanoma antigen, family B, 4 (MAGEB4), mRNA |
| 3019 | 16186 | 28218 | 1.51 | 0.0E+00 | 4758827 | Homo sapiens melanoma antigen, family B, 4 (MAGEB4), mRNA |
| 3022 | 16188 | 28221 | 0.98 | 0.0E+00 | AB033034.1 | Homo sapiens neuraxin III (NRXN3) mRNA |
| 3024 | 16200 | 28223 | 9.8 | 0.0E+00 | AF106275.1 | Homo sapiens mRNA for KIAA1208 protein, partial cds |
| 3038 | 16214 | 28242 | 1.44 | 0.0E+00 | AF106275.1 | Homo sapiens immunoglobulin-like transcript 1c variant 4 (ILT1c) gene, exon 8 |
| 3045 | 16221 | 28243 | 0.71 | 0.0E+00 | AF114980.1 | q43f09.x1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:1752809 3' |
| 3045 | 16221 | 28243 | 0.71 | 0.0E+00 | AF281074.1 | Homo sapiens neuropilin 2 (NRP2) gene, complete cds, alternatively spliced |
| 3045 | 16221 | 28244 | 0.92 | 0.0E+00 | AF281074.1 | Homo sapiens neuropilin 2 (NRP2) gene, complete cds, alternatively spliced |
| 3047 | 16223 | 28245 | 2.81 | 0.0E+00 | AB004684.1 | Homo sapiens prospero-related homeobox 1 (PROX1) mRNA |
| 3057 | 16233 | 28252 | 1.85 | 0.0E+00 | 7682273 | Homo sapiens mRNA for PKU-alpha, partial cds |
| 3058 | 16234 | 28253 | 1.92 | 0.0E+00 | AW812526.1 | Homo sapiens KIAA0737 gene product (KIAA0737), mRNA |
| 3059 | 16235 | 28254 | 2.4 | 0.0E+00 | 5729755 | h03f08.x1 NCL CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2854055 3' similar to TR:Q80407 Q80407 |
| 3059 | 16235 | 28255 | 2.4 | 0.0E+00 | 5729755 | PAC CLONE DJ1168D11 FROM 7P21-P22, COMPLETE SEQUENCE ; |
| 3087 | 16243 | 28263 | 1.17 | 0.0E+00 | AF114488.1 | Homo sapiens calcium channel, voltage-dependent, gamma subunit 3 (CACNG3), mRNA |
| 3087 | 16243 | 28264 | 1.17 | 0.0E+00 | AF114488.1 | Homo sapiens calcium channel, voltage-dependent, gamma subunit 3 (CACNG3), mRNA |
| 3087 | 16243 | 28264 | 1.17 | 0.0E+00 | AF114488.1 | Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds |
| 3091 | 16267 | 28285 | 0.61 | 0.0E+00 | AL163246.2 | Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds |
| 3093 | 16269 | 28285 | 1.29 | 0.0E+00 | M74099.1 | Homo sapiens chromosome 21 segment HS21C046 |
| 3102 | 16278 | 28282 | 0.68 | 0.0E+00 | 4505882 | Human displacement protein (GCAAT) mRNA |
| 3109 | 16285 | 28303 | 3.53 | 0.0E+00 | AF195953.1 | Homo sapiens semenogelin I (SEMG1) mRNA |
| 3112 | 16288 | 28303 | 4.9 | 0.0E+00 | 5579469 | Homo sapiens membrane-bound aminopeptidase P (XNP2P2) gene, complete cds |
| 3112 | 16288 | 28304 | 4.9 | 0.0E+00 | 5579469 | Homo sapiens heat shock 70kD protein 1 (HSPA1A), mRNA |
| 3112 | 16288 | 28304 | 4.9 | 0.0E+00 | 5579469 | Homo sapiens heat shock 70kD protein 1 (HSPA1A), mRNA |

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|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 3114 | 16290 | | 7.27 | 0.0E+00 | AL359403.1 | NT | Isomform 2 of a novel human mRNA from chromosome 22 |
| 3119 | 16295 | 29309 | 1.88 | 0.0E+00 | AF017433.1 | NT | Homo sapiens putative transcription factor CR63 (CR63) mRNA, partial cds |
| 3122 | 16298 | | 2.21 | 0.0E+00 | AF196779.1 | NT | Homo sapiens transcription factor IGEM enhancer 3, JM11 protein, JM4 protein, JM5 protein, T64 protein, JM10 protein, A4 differentiation-dependent protein, triple LIM domain protein 6, and synaptophysin genes, complete cds; and L-type calcium channel $\alpha 2$ |
| 3124 | 16300 | 29313 | 3.76 | 0.0E+00 | 4604664 | NT | Homo sapiens Interleukin 2 receptor, beta (IL2RB) mRNA |
| 3145 | 16321 | 29333 | 3.23 | 0.0E+00 | X03528.1 | NT | Human germline gene 18.1 for Ig lambda L-chain C region (IgL-C18.1) |
| 3151 | 16326 | | 1.92 | 0.0E+00 | AF199355.1 | NT | Homo sapiens F-box protein FBL5 (FBL5) mRNA, complete cds |
| 3155 | 16330 | 29340 | 1.75 | 0.0E+00 | AF064989.1 | NT | Homo sapiens melanoma-associated antigen (MAGE-C1) gene, complete cds |
| 3175 | 16350 | 29359 | 4.71 | 0.0E+00 | AF265208.1 | NT | Homo sapiens SWI-SNF complex protein p270 mRNA, partial cds |
| 3176 | 16351 | 29357 | 10.17 | 0.0E+00 | AF149773.1 | NT | Homo sapiens NOD1 protein (NOD1) gene, exons 1, 2, and 3 |
| 3181 | 16356 | 29361 | 3.92 | 0.0E+00 | 7682139 | NT | Homo sapiens KIAA0468 gene product (KIAA0468). mRNA |
| 3182 | 16357 | 29362 | 1.29 | 0.0E+00 | AF042075.1 | NT | Homo sapiens olfactory receptor-like protein (OLFR 425) gene, OLFR 42B-0110 allele, partial cds |
| 3187 | 16362 | 29368 | 1.19 | 0.0E+00 | AW188146.1 | EST_HUMAN | X02407.x1 Scores, NFL, I, GBC, S1 Homo sapiens cDNA clone IMAGE:2864733 3' similar to SW RNP HYDHY P00677 RIBONUCLEASE PANCREATIC; |
| 3210 | 16384 | 29395 | 3.81 | 0.0E+00 | 4823783 | NT | Homo sapiens potassium voltage-gated channel, Shab-related subfamily, member 1 (KCNB1) mRNA |
| 3219 | 16393 | 29404 | 20.83 | 0.0E+00 | L20941.1 | NT | Human ferritin heavy chain mRNA, complete cds |
| 3222 | 16396 | 29407 | 1.05 | 0.0E+00 | AB011121.1 | NT | Homo sapiens mRNA for KIAA0549 protein, partial cds |
| 3222 | 16396 | 29409 | 1.05 | 0.0E+00 | AB011121.1 | NT | Homo sapiens mRNA for KIAA0549 protein, partial cds |
| 3229 | 16403 | 29415 | 25.61 | 0.0E+00 | T84870.1 | EST_HUMAN | y32703.ct1 Stratogene lung (#937210) Homo sapiens cDNA clone IMAGE:119453 3' similar to SP:S28539 |
| 3244 | 16418 | 29433 | 0.83 | 0.0E+00 | BF243336.1 | EST_HUMAN | S28539 BASIC PROTEIN, 28K -; |
| 3246 | 16419 | 29434 | 1.22 | 0.0E+00 | A1668086.1 | EST_HUMAN | 601878507F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:4107433 5' |
| 3250 | 16424 | 29441 | 5.36 | 0.0E+00 | X98922.1 | NT | wu12110.x1 NCI_CGAP_G08 Homo sapiens cDNA clone IMAGE:2516803 3' |
| 3250 | 16424 | 29442 | 5.36 | 0.0E+00 | X98922.1 | NT | H. sapiens mRNA for gamma-glutamyltransferase |
| 3252 | 16426 | 29444 | 1.01 | 0.0E+00 | A1689950.1 | EST_HUMAN | H. sapiens mRNA for gamma-glutamyltransferase |
| 3262 | 16436 | 29455 | 1.39 | 0.0E+00 | 4758827 | NT | tu38g09.x1 NCI_CGAP_P28 Homo sapiens cDNA clone IMAGE:2253376 3' similar to SW:RASD_D1001 |
| 3262 | 16436 | 29456 | 1.39 | 0.0E+00 | 4758827 | NT | P03967 RAS-LIKE PROTEIN RASD ; |
| 3270 | 16444 | 29484 | 9.59 | 0.0E+00 | 4604658 | NT | Homo sapiens neuroxin III (NRXN3) mRNA |
| 3288 | 16462 | 29482 | 4.54 | 0.0E+00 | M28699.1 | NT | Homo sapiens neuroxin III (NRXN3) mRNA |
| 3282 | 16468 | 29485 | 1.92 | 0.0E+00 | 4602098 | NT | Homo sapiens nuclear phosphoprotein B28 (NPM1) mRNA, complete cds |
| | | | | | | | Homo sapiens solute carrier family 26 (mitochondrial carrier; adenine nucleotide translocator) member 5 (SLC25A5), nuclear gene encoding mitochondrial protein, mRNA |

Page 505 of 550
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|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 3288 | 16472 | 29493 | 0.79 | 0.0E+00 | 4758055 | NT | Homo sapiens CREB binding protein (Rubinstein-Taybi syndrome) (CREBBP) mRNA |
| 3288 | 16472 | 29494 | 0.79 | 0.0E+00 | 4758055 | NT | Homo sapiens CREB binding protein (Rubinstein-Taybi syndrome) (CREBBP) mRNA |
| 3300 | 16474 | 29495 | 29.49 | 0.0E+00 | AA774783.1 | EST_HUMAN | aa87b11.s1 Strategene schizo brain 311 Homo sapiens cDNA clone IMAGE:971133 3' |
| 3308 | 16482 | 29503 | 8.38 | 0.0E+00 | AF286598.1 | NT | Homo sapiens angiotensin binding protein 1 mRNA, complete cds |
| 3308 | 16482 | 29504 | 8.38 | 0.0E+00 | AF286598.1 | NT | Homo sapiens angiotensin binding protein 1 mRNA, complete cds |
| 3320 | 16493 | 29510 | 3.04 | 0.0E+00 | 4537590 | NT | Homo sapiens fibrillin 1 (Marfan syndrome) (FBN1) mRNA |
| 3326 | 16499 | 29517 | 1.01 | 0.0E+00 | 4507720 | NT | Homo sapiens fibrillin 1 (Marfan syndrome) (FBN1) mRNA |
| 3334 | 16507 | | 10.18 | 0.0E+00 | M65189.1 | NT | Human connexin 43 processed pseudogene |
| 3335 | 16508 | 29524 | 0.95 | 0.0E+00 | AF019413.1 | NT | Homo sapiens HLA class III region containing tenascin X (tenascin-X) gene, partial cds; cytochrome P450 21-hydroxylase (CYP21B), complement component C4 (C4B) G11, helicase (SKI2W), RD, complement factor B (Bf), and complement component C2 (C2) genes > |
| 3338 | 16511 | 29527 | 4.08 | 0.0E+00 | AF05084.1 | NT | Homo sapiens very large G-protein coupled receptor-1 (VLGR1) mRNA, complete cds |
| 3348 | 16464 | 29535 | 1.34 | 0.0E+00 | 4502014 | NT | Homo sapiens A kinase (PRKA) anchor protein 1 (AKAP1), mRNA |
| 3348 | 16464 | 29536 | 1.34 | 0.0E+00 | 4502014 | NT | Homo sapiens A kinase (PRKA) anchor protein 1 (AKAP1), mRNA |
| 3363 | 16535 | 29549 | 3.58 | 0.0E+00 | AF265208.1 | NT | Homo sapiens SWI-SNF complex protein p270 mRNA, partial cds |
| 3364 | 16536 | 29550 | 0.95 | 0.0E+00 | 8923824 | NT | Homo sapiens hypothetical protein FLJ20695 (FLJ20695), mRNA |
| 3377 | 16549 | 29563 | 1.42 | 0.0E+00 | 7657038 | NT | Homo sapiens death receptor 6 (DR6), mRNA |
| 3388 | 16553 | 29573 | 0.72 | 0.0E+00 | 4885312 | NT | Homo sapiens G-protein-coupled receptor 24 (GPR24), mRNA |
| 3401 | 16571 | 29586 | 3.14 | 0.0E+00 | AI689294.1 | EST_HUMAN | h88f08.x2 NCI CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2222635 3' similar to SW:RL11_RAT |
| 3404 | 16574 | 29589 | 9.94 | 0.0E+00 | AW955400.1 | EST_HUMAN | P25121 60S RIBOSOMAL PROTEIN L11: contains Alu repetitive element |
| 3412 | 16581 | 29596 | 2.41 | 0.0E+00 | AF128893.1 | NT | EST387470 MAGE resequences, MAGD Homo sapiens cDNA |
| 3412 | 16581 | 29597 | 2.41 | 0.0E+00 | AF128893.1 | NT | Homo sapiens telomerase reverse transcriptase (TERT) gene, exons 1-8 |
| 3413 | 16582 | 29598 | 1.03 | 0.0E+00 | 7657213 | NT | Homo sapiens telomerase reverse transcriptase (TERT) gene, exons 1-8 |
| 3413 | 16582 | 29599 | 1.03 | 0.0E+00 | 7657213 | NT | Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA |
| 3416 | 16585 | 29601 | 1.29 | 0.0E+00 | 4502592 | NT | Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA |
| 3416 | 16585 | 29602 | 1.29 | 0.0E+00 | 4502592 | NT | Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA |
| 3416 | 16588 | 29604 | 11.92 | 0.0E+00 | AF111163.1 | NT | Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA |
| 3421 | 16590 | 29606 | 1.02 | 0.0E+00 | AB040940.1 | NT | Homo sapiens pyrin (MEPV) gene, complete cds |
| 3428 | 16598 | 29612 | 0.79 | 0.0E+00 | BE776039.1 | EST_HUMAN | Homo sapiens mRNA for KIAA1507 protein, partial cds |
| 3441 | 16609 | 29627 | 0.67 | 0.0E+00 | AI632569.1 | EST_HUMAN | 601464995F1 NIH_MGC_97 Homo sapiens cDNA clone IMAGE:3688248 5' |
| 3483 | 16651 | 29667 | 10 | 0.0E+00 | AU123664.1 | EST_HUMAN | wb10904.x1 NCI CGAP_GC8 Homo sapiens cDNA clone IMAGE:2305279 3' similar to TR:Q91829 Q91829 |
| 3492 | 16659 | 29671 | 1.16 | 0.0E+00 | 7706239 | NT | ZINC FINGER PROTEIN |
| | | | | | | | AU123664 NT2RM2 Homo sapiens cDNA clone NT2RM2000735 5' |
| | | | | | | | Homo sapiens neuroblastoma-amplified protein (LOC61694), mRNA |

Page 506 of 550
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|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 3493 | 16660 | 29872 | 1.26 | 0.0E+00 | AF211189.1 | NT | Homo sapiens T-type calcium channel alpha1 subunit Alpha1I-a isoform (CACNA1I) mRNA, complete cds |
| 3498 | 16665 | | 0.94 | 0.0E+00 | AW67018.1 | EST_HUMAN | MR1-SN0033-100400-001-c08 SN0033 Homo sapiens cDNA |
| 3511 | 16677 | 29687 | 2.02 | 0.0E+00 | 7662401 | NT | Homo sapiens KIAA0952 protein (KIAA0952), mRNA |
| 3511 | 16677 | 29688 | 2.02 | 0.0E+00 | 7662401 | NT | Homo sapiens KIAA0952 protein (KIAA0952), mRNA |
| 3512 | 16678 | 29689 | 0.92 | 0.0E+00 | 4502398 | NT | Homo sapiens beaded filament structural protein 1, filensin (BFSPT) mRNA |
| 3514 | 16680 | 29690 | 2.35 | 0.0E+00 | 5803067 | NT | Homo sapiens leukocyte immunoglobulin-like receptor, subfamily A (with TM domain), member 2 (LILRA2), mRNA |
| 3523 | 16907 | 28015 | 3.08 | 0.0E+00 | AF110783.1 | NT | Homo sapiens skeletal muscle LIM-protein 1 (FHL1) gene, complete cds |
| 3526 | 16693 | 29703 | 2.46 | 0.0E+00 | 7657038 | NT | Homo sapiens death receptor 6 (DR6), mRNA |
| 3532 | 16697 | 29708 | 5.5 | 0.0E+00 | K02380.1 | NT | Bacteriophage P1 replication region including repA, parA, and parB genes and IncA, IncB, and IncC incompatibility determinants |
| 3535 | 16700 | 29711 | 1.38 | 0.0E+00 | 7427522 | NT | Homo sapiens protein tyrosine phosphatase, receptor type, T (PTPRT), mRNA |
| 3538 | 16703 | 29714 | 1.83 | 0.0E+00 | 4557746 | NT | Homo sapiens met proto-oncogene (hepatocyte growth factor receptor) (MET) mRNA |
| 3544 | 16709 | 29719 | 4.17 | 0.0E+00 | A1935159.1 | EST_HUMAN | wp14d10.x1 NCJ_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2464819 3' similar to TR:073634 073634 NEURAL CELL ADHESION MOLECULE. ; |
| 3544 | 16709 | 29720 | 4.17 | 0.0E+00 | A1935159.1 | EST_HUMAN | wp14d10.x1 NCJ_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2464819 3' similar to TR:073634 073634 NEURAL CELL ADHESION MOLECULE. ; |
| 3548 | 16713 | 29725 | 1.91 | 0.0E+00 | AJ276120.1 | NT | Homo sapiens mRNA for putative ankyrin-repeat containing protein (ORF1) |
| 3555 | 16720 | 29734 | 5.38 | 0.0E+00 | 5582332 | NT | Homo sapiens v-fos FBJ murine osteosarcoma viral oncogene homolog (FOS), mRNA |
| 3556 | 16720 | 29735 | 5.38 | 0.0E+00 | 5582332 | NT | Homo sapiens v-fos FBJ murine osteosarcoma viral oncogene homolog (FOS), mRNA |
| 3560 | 16725 | 29741 | 1.41 | 0.0E+00 | M14123.1 | NT | Human endogenous retrovirus HERV-K10 |
| 3566 | 16731 | 29747 | 5.78 | 0.0E+00 | U43293.1 | NT | Human MDSTA (AML1/MDS1 fusion) mRNA, partial cds |
| 3574 | 16739 | 29755 | 2.57 | 0.0E+00 | AF045452.1 | NT | Homo sapiens cell-line KG1 transcriptional regulatory protein p54 mRNA, complete cds |
| 3574 | 16739 | 29756 | 2.57 | 0.0E+00 | AF045452.1 | NT | Homo sapiens cell-line KG1 transcriptional regulatory protein p54 mRNA, complete cds |
| 3582 | 16747 | 29768 | 1.18 | 0.0E+00 | AF231922.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 3594 | 16758 | 29773 | 3.29 | 0.0E+00 | BE304791.1 | EST_HUMAN | 601143853F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:3081973 6' |
| 3594 | 16758 | 29774 | 3.29 | 0.0E+00 | BE304791.1 | EST_HUMAN | 601143853F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:3081973 6' |
| 3597 | 16761 | 29777 | 1.04 | 0.0E+00 | 4826796 | NT | Homo sapiens potassium voltage-gated channel, Isk-related family, member 2 (KONE2) mRNA |
| 3600 | 16764 | 29780 | 0.8 | 0.0E+00 | O14867 | SWISSPROT | TRANSCRIPTION REGULATOR PROTEIN BACH1 (BTB AND CNC HOMOLOG 1) (BA2303) |
| 3603 | 16767 | 29782 | 0.89 | 0.0E+00 | A1384007.1 | EST_HUMAN | 600498 MYASTHENIA GRAVIS AUTOANTIGEN GRAVIN ; |
| 3621 | 16765 | 29801 | 0.6 | 0.0E+00 | AB032979.1 | NT | Homo sapiens mRNA for KIAA1153 protein, partial cds |
| 3621 | 16765 | 29802 | 0.6 | 0.0E+00 | AB032979.1 | NT | Homo sapiens mRNA for KIAA1153 protein, partial cds |

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|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 3623 | 16787 | 29803 | 0.68 | 0.0E+00 | AA456282.1 | EST_HUMAN | z68h04.r1 Soares_NH-MP_u_S1 Homo sapiens cDNA clone IMAGE:811927 5' |
| 3623 | 16787 | 29804 | 0.68 | 0.0E+00 | AA456282.1 | EST_HUMAN | z68h04.r1 Soares_NH-MP_u_S1 Homo sapiens cDNA clone IMAGE:811927 5' |
| 3630 | 16794 | 29811 | 1.45 | 0.0E+00 | AV701869.1 | EST_HUMAN | AV701869 ADB Homo sapiens cDNA clone ADBDA-06 5' |
| 3631 | 16795 | 29812 | 4.48 | 0.0E+00 | 4506884 | NT | Homo sapiens semogelin II (SEMIG2) mRNA |
| 3633 | 16797 | | 1.17 | 0.0E+00 | AF078988.1 | NT | Homo sapiens homologous yeast-44.2 protein mRNA, complete cds |
| 3642 | 16806 | 29820 | 1.34 | 0.0E+00 | AL133204.1 | NT | Novel human gene mapping to chromosome X. |
| 3644 | 16807 | 29821 | 1.16 | 0.0E+00 | AB040909.1 | NT | Homo sapiens mRNA for KIAA1476 protein, partial cds |
| 3655 | 16828 | 29837 | 0.97 | 0.0E+00 | 6987248 | NT | Homo sapiens sal (Drosophila)-like 1 (SALL1), mRNA |
| 3655 | 16828 | 29838 | 0.97 | 0.0E+00 | 6987248 | NT | Homo sapiens sal (Drosophila)-like 1 (SALL1), mRNA |
| 3657 | 16830 | 29841 | 1.06 | 0.0E+00 | 6325463 | NT | Homo sapiens butyrophilin, subfamily 3, member A3 (BTN3A3), mRNA |
| 3672 | 16835 | | 4.28 | 0.0E+00 | AW952217.1 | EST_HUMAN | QV0-C10225-230300-169-e01 C10225 Homo sapiens cDNA |
| 3679 | 16842 | | 1.28 | 0.0E+00 | AF116846.1 | NT | Homo sapiens gamma-glutamylcysteine synthetase (GLC1C) gene, partial cds |
| 3680 | 16843 | 29850 | 7.65 | 0.0E+00 | BF676393.1 | EST_HUMAN | 002094503F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4248596 5' |
| 3704 | 16865 | 29868 | 0.59 | 0.0E+00 | BF672054.1 | EST_HUMAN | 602152486F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4283645 5' |
| 3704 | 16865 | 29869 | 0.59 | 0.0E+00 | BF672054.1 | EST_HUMAN | 602152486F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4283645 5' |
| 3705 | 16868 | | 0.99 | 0.0E+00 | 4826957 | NT | Homo sapiens retinoblastoma-binding protein 2 (RBBP2) mRNA |
| 3707 | 16868 | 29871 | 0.76 | 0.0E+00 | AW664693.1 | EST_HUMAN | hi84g01.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2978024 3' |
| 3707 | 16868 | 29872 | 0.76 | 0.0E+00 | AW664693.1 | EST_HUMAN | hi84g01.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2978024 3' |
| 3711 | 16872 | 29876 | 0.89 | 0.0E+00 | 4826763 | NT | Homo sapiens heparan sulfate (glucosamine) 3-O-sulfotransferase 1 (HS3ST1) mRNA |
| 3713 | 16874 | 29879 | 0.93 | 0.0E+00 | 7662319 | NT | Homo sapiens KIAA0809 gene product (KIAA0809), mRNA |
| 3720 | 16881 | 29886 | 0.74 | 0.0E+00 | 4567762 | NT | Homo sapiens midline 1 (Opitz/BBB syndrome) (MID1) mRNA |
| 3737 | 16888 | 29901 | 2.36 | 0.0E+00 | D87327.1 | NT | Homo sapiens midline 1 (Opitz/BBB syndrome) (MID1) mRNA |
| 3741 | 16902 | | 6.29 | 0.0E+00 | 7669491 | NT | Homo sapiens mRNA for G protein-coupled inward rectifier potassium channel, complete cds |
| 3757 | 16918 | 29920 | 3.98 | 0.0E+00 | AB026542.1 | NT | Homo sapiens glyceraldehyde-3-phosphate dehydrogenase (GAPD), mRNA |
| 3759 | 16920 | 29922 | 1.06 | 0.0E+00 | AB007868.2 | NT | Homo sapiens WAVE2 mRNA for WASP-family protein, complete cds |
| 3761 | 16922 | 29923 | 5.16 | 0.0E+00 | AF124250.1 | NT | Homo sapiens SH2-containing protein Nsp2 mRNA, complete cds |
| 3761 | 16922 | 29924 | 5.16 | 0.0E+00 | AF124250.1 | NT | Homo sapiens SH2-containing protein Nsp2 mRNA, complete cds |
| 3767 | 16928 | 29932 | 32.49 | 0.0E+00 | AA852743.1 | EST_HUMAN | NHTBCae15g09f1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBCae15g09 |
| 3767 | 16928 | 29933 | 32.49 | 0.0E+00 | AA852743.1 | EST_HUMAN | NHTBCae15g09f1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBCae15g09 |
| 3770 | 16931 | 29935 | 1.95 | 0.0E+00 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 3770 | 16931 | 29936 | 1.95 | 0.0E+00 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 3771 | 16932 | 28937 | 0.99 | 0.0E+00 | AB002331.1 | NT | Human mRNA for KIAA0333 gene, partial cds |
| 3771 | 16932 | 28938 | 0.99 | 0.0E+00 | AB002331.1 | NT | Human mRNA for KIAA0333 gene, partial cds |
| 3774 | 16935 | 28941 | 2.4 | 0.0E+00 | AW851714.1 | EST_HUMAN | MIR2-GT0222-281089-005-c05 GT0222 Homo sapiens cDNA |
| 3776 | 16937 | 28943 | 2.37 | 0.0E+00 | 6729028 | NT | Homo sapiens matrix metalloproteinase 24 (membrane-inserted) (MMP24), mRNA |
| 3778 | 16939 | 28945 | 1.15 | 0.0E+00 | AB018339.1 | NT | Homo sapiens mRNA for KIAA0786 protein, partial cds |
| 3780 | 16941 | 28947 | 0.74 | 0.0E+00 | O14867 | SWISSPROT | TRANSCRIPTION REGULATOR PROTEIN BACH1 (BTB AND CNC HOMOLOG 1) (HA2303) |
| 3782 | 16943 | 28949 | 1.02 | 0.0E+00 | AB020717.1 | NT | Homo sapiens mRNA for KIAA0810 protein, partial cds |
| 3782 | 16943 | 28950 | 1.02 | 0.0E+00 | AB020717.1 | NT | Homo sapiens mRNA for KIAA0810 protein, partial cds |
| 3794 | 16955 | 28959 | 5.42 | 0.0E+00 | AW298134.1 | EST_HUMAN | UI-H-BWO-gls-e-12-O-UI.s1 NCL_CGAP_Sub68 Homo sapiens cDNA clone IMAGE:2733022 3' |
| 3794 | 16955 | 28960 | 5.42 | 0.0E+00 | AW298134.1 | EST_HUMAN | UI-H-BWO-gls-e-12-O-UI.s1 NCL_CGAP_Sub68 Homo sapiens cDNA clone IMAGE:2733022 3' |
| 3823 | 16983 | 28986 | 1.04 | 0.0E+00 | AB004630.1 | NT | Human gene for Type XIX collagen at chain, exon 6 |
| 3824 | 16984 | 28987 | 1.17 | 0.0E+00 | AA463639.1 | EST_HUMAN | esd6g01.1 Soares, NIHMPu, S1 Homo sapiens cDNA clone IMAGE:812498 5' similar to SW:KRB4, SHEEP P02445 KERATIN, HIGH-SULFUR MATRIX PROTEIN, IIIB4, [1]; |
| 3831 | 16991 | 28993 | 3.23 | 0.0E+00 | 7657468 | NT | Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA |
| 3841 | 17000 | 30003 | 0.83 | 0.0E+00 | AB037835.1 | NT | Homo sapiens mRNA for KIAA1414 protein, partial cds |
| 3855 | 17015 | 30015 | 5.72 | 0.0E+00 | 7682183 | NT | Homo sapiens KIAA0569 gene product (KIAA0569), mRNA |
| 3859 | 17019 | 30018 | 18.03 | 0.0E+00 | 4506718 | NT | Homo sapiens ribosomal protein S2 (RPS2) mRNA |
| 3866 | 17025 | 30023 | 1.52 | 0.0E+00 | 7657085 | NT | Homo sapiens v-ets avian erythroblastosis virus E26 oncogene related (ERG), mRNA |
| 3866 | 17025 | 30024 | 1.52 | 0.0E+00 | 7657085 | NT | Homo sapiens v-ets avian erythroblastosis virus E26 oncogene related (ERG), mRNA |
| 3869 | 17028 | 30027 | 8.04 | 0.0E+00 | 4505594 | NT | Homo sapiens plasminogen activator inhibitor, type II (arginine-serpin) (PAI2) mRNA |
| 3922 | 17081 | 30077 | 1.86 | 0.0E+00 | AF145712.1 | NT | Homo sapiens soluble neuropilin-1 mRNA, complete cds |
| 3924 | 17083 | | 0.73 | 0.0E+00 | AF195556.1 | NT | Homo sapiens DNA mismatch repair protein (MLH3) gene, complete cds |
| 3925 | 17084 | 30079 | 2.36 | 0.0E+00 | AF179733.1 | NT | Pan troglodytes olfactory receptor (PTR208) gene, partial cds |
| 3928 | 17087 | 30083 | 2.36 | 0.0E+00 | 7657468 | NT | Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA |
| 3929 | 17088 | 30084 | 2.36 | 0.0E+00 | 7657468 | NT | Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA |
| 3935 | 17094 | 30085 | 1.74 | 0.0E+00 | AF020091.1 | NT | Homo sapiens smooth muscle myosin heavy chain SM1 mRNA, alternatively spliced, partial cds |
| 3935 | 17094 | 30082 | 1.05 | 0.0E+00 | AF127851.1 | NT | Gorilla gorilla olfactory receptor (GG071) gene, partial cds |
| 3935 | 17094 | 30083 | 1.05 | 0.0E+00 | AF127851.1 | NT | Gorilla gorilla olfactory receptor (GG071) gene, partial cds |
| 3936 | 17095 | 30084 | 1.29 | 0.0E+00 | A137699.1 | EST_HUMAN | le62f10.x1 Soares, NFL_T_G9C_S1 Homo sapiens cDNA clone IMAGE:2061307 3' |
| 3937 | 17096 | | 1 | 0.0E+00 | AF152498.1 | NT | Homo sapiens protocadherin beta 3 (PCDH-beta3) mRNA, complete cds |
| 3938 | 17097 | 30085 | 2.6 | 0.0E+00 | 4758198 | NT | Homo sapiens desmoplakin (DPI, DP11) (DSP) mRNA |
| 3940 | 17098 | 30086 | 15.6 | 0.0E+00 | S78685.1 | NT | Homo sapiens ATP-sensitive inwardly rectifying K-channel subunit (KCNJ6/IR1) gene, complete cds |
| 3942 | 17101 | 30088 | 2.14 | 0.0E+00 | 7710148 | NT | Homo sapiens methyl CpG binding protein 2 (MECP2), mRNA |

Page 509 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 3943 | 17102 | 30089 | 1.78 | 0.0E+00 | 7682183 | NT | Homo sapiens KIAA0569 gene product (KIAA0569), mRNA |
| 3946 | 17105 | 30101 | 1.62 | 0.0E+00 | AF069601.2 | NT | Homo sapiens myosin light chain kinase isoform 2 (MLCK) mRNA, complete cds |
| 3946 | 17105 | 30102 | 1.62 | 0.0E+00 | AF069601.2 | NT | Homo sapiens myosin light chain kinase isoform 2 (MLCK) mRNA, complete cds |
| 3951 | 17109 | 30107 | 1.02 | 0.0E+00 | AB001523.1 | NT | Homo sapiens gene for TMEM1 and PWP2, complete and partial cds |
| 3951 | 17109 | 30108 | 1.02 | 0.0E+00 | AB001623.1 | NT | Homo sapiens gene for TMEM1 and PWP2, complete and partial cds |
| 3952 | 17110 | 30108 | 0.9 | 0.0E+00 | 6912735 | NT | Homo sapiens transient receptor potential channel 5 (TRPC5), mRNA |
| 3957 | 17115 | 30117 | 6.96 | 0.0E+00 | 4503178 | NT | Homo sapiens chromosome X open reading frame 5 (CXORF5) mRNA |
| 3957 | 17115 | 30118 | 6.96 | 0.0E+00 | 4503178 | NT | Homo sapiens chromosome X open reading frame 5 (CXORF5) mRNA |
| 3959 | 17117 | 30121 | 4.85 | 0.0E+00 | U09412.1 | NT | Human zinc finger protein ZNF134 mRNA, complete cds |
| 3960 | 17118 | 30122 | 1.12 | 0.0E+00 | AF114468.1 | NT | Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds |
| 3963 | 17121 | 30124 | 1.23 | 0.0E+00 | 4826783 | NT | Homo sapiens potassium voltage-gated channel, Shab-related subfamily, member 1 (KCNB1) mRNA |
| 3968 | 17124 | 30127 | 1.44 | 0.0E+00 | AF012619.1 | NT | Homo sapiens familial mental retardation protein 2 (FMR2) gene, exon 11 |
| 3987 | 17125 | 30128 | 2.87 | 0.0E+00 | 4756171 | NT | Homo sapiens SC33-interacting protein 1 (SRFP128), mRNA |
| 3989 | 17127 | 30130 | 0.77 | 0.0E+00 | AF099117.1 | NT | Homo sapiens amphiphysin gene, partial cds |
| 3979 | 17136 | 30140 | 3.22 | 0.0E+00 | AI864727.1 | EST_HUMAN | wk01f01.x1 NCL CGAP_Lym12 Homo sapiens cDNA clone IMAGE:2411065 3' similar to TR:O43340 |
| 3980 | 17137 | 30141 | 1.03 | 0.0E+00 | AL163248.2 | NT | O43340 R28830_2, contains element PTR7 repetitive element; |
| 3983 | 17140 | 30145 | 18.17 | 0.0E+00 | 4506742 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 3988 | 17145 | 30161 | 1.33 | 0.0E+00 | AL040338.1 | EST_HUMAN | Homo sapiens ribosomal protein S8 (RPS8), mRNA |
| 3984 | 17151 | 30156 | 1.9 | 0.0E+00 | 6005887 | NT | DKFZ434N0413_11 434 (synonym: htes3) Homo sapiens cDNA clone DKFZ434N0413 6' |
| 3984 | 17151 | 30159 | 1.9 | 0.0E+00 | 6005887 | NT | Homo sapiens AP1 gamma subunit binding protein 1 (AP1GBP1), mRNA |
| 3986 | 17153 | 30161 | 3.94 | 0.0E+00 | 4504138 | NT | Homo sapiens glutamate receptor, metabotropic 3 (GRM3) mRNA |
| 3997 | 17164 | 30161 | 2.26 | 0.0E+00 | 4505078 | NT | Homo sapiens melanoma antigen, family B, 1 (MAGEB1) mRNA |
| 4001 | 17168 | 30164 | 0.97 | 0.0E+00 | AF149412.1 | NT | Homo sapiens HBP17 heparin-binding and FGF-binding protein gene, complete cds |
| 4013 | 17170 | 30178 | 2.86 | 0.0E+00 | 4506758 | NT | Homo sapiens ryanodine receptor 3 (RYR3) mRNA |
| 4017 | 17174 | 30182 | 1.9 | 0.0E+00 | 4585642 | NT | Homo sapiens zinc finger protein (KIAA0412) mRNA |
| 4026 | 17182 | 30191 | 5.14 | 0.0E+00 | BF555285.1 | EST_HUMAN | RC3-HT0860-170800-011-a12 HT0860 Homo sapiens cDNA |
| 4028 | 17184 | 30193 | 1.37 | 0.0E+00 | AW888221.1 | EST_HUMAN | MXRA5 Human matrix tissue expression library Homo sapiens cDNA clone Incyte 1896728 similar to MXRA5 |
| 4028 | 17184 | 30194 | 1.37 | 0.0E+00 | AW888221.1 | EST_HUMAN | Matrix remodelling associated gene 5 |
| 4035 | 17191 | 30201 | 3.05 | 0.0E+00 | AF128533.1 | NT | Matrix remodelling associated gene 5 |
| 4038 | 17194 | 30204 | 1.14 | 0.0E+00 | U86281.1 | NT | Homo sapiens F-box protein Fbl3b (FBL3B) mRNA, partial cds |
| | | | | | | | Homo sapiens olfactory receptor (OR7-141) gene, partial cds |

Page 510 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 4038 | 17194 | 30206 | 1.14 | 0.0E+00 | U86281.1 | NT | Homo sapiens olfactory receptor (OR7-141) gene, partial cds |
| 4042 | 17198 | 30209 | 3.47 | 0.0E+00 | BE378602.1 | EST_HUMAN | 601236966F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3608800 5' |
| 4043 | 17199 | 30210 | 1.2 | 0.0E+00 | BE313146.1 | EST_HUMAN | 601153727F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3608743 5' |
| 4061 | 17207 | 30217 | 1.28 | 0.0E+00 | AW580740.1 | EST_HUMAN | PM3-LT0031-100100-003-109 LT0031 Homo sapiens cDNA |
| 4062 | 17208 | 30218 | 1.03 | 0.0E+00 | 530215 | NT | Homo sapiens iduronate 2-sulfatase (Hunter syndrome) (IDS), transcript variant 1, mRNA |
| 4077 | 17233 | 30238 | 0.8 | 0.0E+00 | U10991.1 | NT | Human G2 protein mRNA, partial cds |
| 4077 | 17233 | 30239 | 0.8 | 0.0E+00 | U10991.1 | NT | Human G2 protein mRNA, partial cds |
| 4077 | 17233 | 30240 | 0.8 | 0.0E+00 | U10991.1 | NT | Human G2 protein mRNA, partial cds |
| 4084 | 17239 | 30244 | 9.31 | 0.0E+00 | AF116195.1 | NT | Homo sapiens cancer-testis antigen CT10 (CT10) gene, complete cds |
| 4084 | 17239 | 30245 | 9.31 | 0.0E+00 | AF116195.1 | NT | Homo sapiens cancer-testis antigen CT10 (CT10) gene, complete cds |
| 4093 | 17248 | | 3.51 | 0.0E+00 | M23910.1 | NT | Human MHC class II lymphocyte antigen DPw4-beta-2 pseudogene, exon 2 |
| 4096 | 17250 | | 7.25 | 0.0E+00 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 4104 | 17258 | 30258 | 2.93 | 0.0E+00 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 4112 | 17266 | 30266 | 2.13 | 0.0E+00 | AL163288.2 | NT | Homo sapiens chromosome 21 segment HS21C069 |
| 4127 | 17281 | | 111.8 | 0.0E+00 | 4503470 | NT | Homo sapiens eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) mRNA |
| 4134 | 17287 | | 0.99 | 0.0E+00 | A1657076.1 | EST_HUMAN | ff55g08.x1 NCJ_CGAP_GC8 Homo sapiens cDNA clone IMAGE:2244734 3' similar to TR:060309 O60309 KIAA0563 PROTEIN ; |
| 4137 | 17288 | 30284 | 1.91 | 0.0E+00 | 7682183 | NT | Homo sapiens KIAA0569 gene product (KIAA0569), mRNA |
| 4138 | 17290 | 30285 | 2.85 | 0.0E+00 | U08366.1 | NT | Human zinc finger protein ZNF133 |
| 4157 | 17308 | 30304 | 6 | 0.0E+00 | AB015610.1 | NT | Chlorocebus aethiops mRNA for ribosomal protein S4X, complete cds |
| 4166 | 17316 | | 3.22 | 0.0E+00 | AJ238617.1 | NT | Homo sapiens mRNA for UGA suppressor RNA-associated antigenic protein (RNA49 gene) |
| 4177 | 17327 | 30318 | 1.58 | 0.0E+00 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 4178 | 17328 | 30319 | 2.68 | 0.0E+00 | AJ277276.1 | NT | Homo sapiens mRNA for repe-2 (repa gene) |
| 4178 | 17328 | 30320 | 2.68 | 0.0E+00 | AJ277276.1 | NT | Homo sapiens mRNA for repe-2 (repa gene) |
| 4185 | 17335 | 30327 | 8.33 | 0.0E+00 | 5032026 | NT | Homo sapiens retinoblastoma-binding protein 4 (RBBP4) mRNA |
| 4185 | 17335 | 30328 | 8.33 | 0.0E+00 | 5032026 | NT | Homo sapiens retinoblastoma-binding protein 4 (RBBP4) mRNA |
| 4184 | 17344 | 30337 | 0.84 | 0.0E+00 | 4503914 | NT | Homo sapiens phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide synthetase, phosphoribosylaminimidazole synthetase (GART) mRNA |
| 4202 | 17351 | 30343 | 6.02 | 0.0E+00 | 4895306 | NT | Homo sapiens G protein-coupled receptor 21 (GPR21), mRNA |
| 4203 | 17352 | 30344 | 11.98 | 0.0E+00 | AB006626.1 | NT | Homo sapiens mRNA for KIAA0287 gene, partial cds |
| 4206 | 17355 | 30345 | 1.28 | 0.0E+00 | 4758807 | NT | Homo sapiens ras GTPase activating protein-like (NGAP) mRNA |
| 4207 | 17359 | 30346 | 7.08 | 0.0E+00 | 11419287 | NT | Homo sapiens IMP (inosine monophosphate) dehydrogenase 1 (IMPDH1), mRNA |
| 4208 | 17357 | 30347 | 4.33 | 0.0E+00 | AL088857.1 | NT | Novel human mRNA from chromosome 1, which has similarities to BAT2 genes |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 4208 | 17388 | | 0.98 | 0.0E+00 | AA016975.1 | EST_HUMAN | 2655e09.1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:362820 5' similar to contains Alu repetitive element |
| 4218 | 17367 | 30356 | 5.32 | 0.0E+00 | AF165527.1 | NT | Homo sapiens DGCOR8 (DGCOR8) mRNA, complete cds |
| 4227 | 14319 | 27373 | 0.7 | 0.0E+00 | 4826847 | NT | Homo sapiens protein kinase, X-linked (PRKX) mRNA |
| 4227 | 14319 | 27374 | 0.7 | 0.0E+00 | 4826847 | NT | Homo sapiens protein kinase, X-linked (PRKX) mRNA |
| 4234 | 17381 | 30369 | 1.32 | 0.0E+00 | 4503854 | NT | Homo sapiens GA-binding protein transcription factor, alpha subunit (60kD) (GABPA), mRNA |
| 4234 | 17381 | 30370 | 1.32 | 0.0E+00 | 4503854 | NT | Homo sapiens GA-binding protein transcription factor, alpha subunit (60kD) (GABPA), mRNA |
| 4236 | 16785 | 28812 | 0.64 | 0.0E+00 | 4506884 | NT | Homo sapiens semaphorin II (SEMG2) mRNA |
| 4238 | 17384 | 30372 | 0.81 | 0.0E+00 | 8922391 | NT | Homo sapiens hypothetical protein FLJ10379 (FLJ10379), mRNA |
| 4238 | 17384 | 30373 | 0.81 | 0.0E+00 | 8922391 | NT | Homo sapiens hypothetical protein FLJ10379 (FLJ10379), mRNA |
| 4244 | 17390 | 30377 | 0.85 | 0.0E+00 | AB020702.1 | NT | Homo sapiens mRNA for KIAA0895 protein, partial cds |
| 4252 | 17398 | 30386 | 5.57 | 0.0E+00 | A1982597.1 | EST_HUMAN | wu04d04.x1 NCJ CGAP GC8 Homo sapiens cDNA clone IMAGE:2516975 3' |
| 4252 | 17398 | 30387 | 5.57 | 0.0E+00 | A1982597.1 | EST_HUMAN | wu04d04.x1 NCJ CGAP GC8 Homo sapiens cDNA clone IMAGE:2516975 3' |
| 4255 | 17400 | 30389 | 1 | 0.0E+00 | BE184858.1 | EST_HUMAN | MR1-HT0707-100500-001-802 HT0707 Homo sapiens cDNA |
| 4255 | 17400 | 30390 | 1 | 0.0E+00 | BE184858.1 | EST_HUMAN | MR1-HT0707-100500-001-802 HT0707 Homo sapiens cDNA |
| 4259 | 17404 | | 5.89 | 0.0E+00 | BE274217.1 | EST_HUMAN | 601120778F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2867680 5' |
| 4266 | 17410 | 30396 | 2.07 | 0.0E+00 | 5729725 | NT | Homo sapiens nuclear receptor coactivator 3 (NCOA3), mRNA |
| 4272 | 17417 | | 5.76 | 0.0E+00 | AW675599.1 | EST_HUMAN | ba51f04.x1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2900095 3' similar to SW:TH12_BOVIN Q85108 MITOCHONDRIAL THIOREDIXIN PRECURSOR; |
| 4277 | 17422 | 30410 | 1.12 | 0.0E+00 | AW408788.1 | EST_HUMAN | UJ-HF-BMD-edc-c-02-0-JL1 NIH_MGC_38 Homo sapiens cDNA clone IMAGE:3063147 5' |
| 4278 | 17423 | 30411 | 1.55 | 0.0E+00 | 8922468 | NT | Homo sapiens hypothetical protein FLJ10498 (FLJ10498), mRNA |
| 4278 | 17423 | 30412 | 1.55 | 0.0E+00 | 8922468 | NT | Homo sapiens hypothetical protein FLJ10498 (FLJ10498), mRNA |
| 4287 | 17432 | | 2.35 | 0.0E+00 | 5174632 | NT | Homo sapiens polycystic kidney disease (polycystin) and REJ (eporn receptor for egg jelly, sea urchin homolog)-like (PKDREJ) mRNA |
| 4300 | 17443 | 30429 | 1.07 | 0.0E+00 | AB037739.1 | NT | Homo sapiens mRNA for KIAA1318 protein, partial cds |
| 4309 | 17452 | 30438 | 11.47 | 0.0E+00 | AA401433.1 | EST_HUMAN | zu08h07.s1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:743197 3' similar to contains Alu repetitive element; contains element MER35 repetitive element |
| 4309 | 17452 | 30439 | 11.47 | 0.0E+00 | AA401433.1 | EST_HUMAN | zu08h07.s1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:743197 3' similar to contains Alu repetitive element; contains element MER35 repetitive element |
| 4312 | 17455 | 30443 | 1.2 | 0.0E+00 | AF157476.1 | NT | Homo sapiens DNA polymerase zeta catalytic subunit (REV3) mRNA, complete cds |
| 4338 | 17481 | 30461 | 8.09 | 0.0E+00 | 4758193 | NT | Homo sapiens desmoplakin (DPI, DPII) (DSP) mRNA |
| 4338 | 17481 | 30462 | 8.09 | 0.0E+00 | 4758193 | NT | Homo sapiens desmoplakin (DPI, DPII) (DSP) mRNA |
| 4345 | 17488 | | 0.86 | 0.0E+00 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 4388 | 17531 | 30512 | 5.01 | 0.0E+00 | J02810.1 | NT | Human apolipoprotein B-100 mRNA, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 4402 | 17545 | 30529 | 0.81 | 0.0E+00 | AW036689.1 | EST_HUMAN | PM2-DT0023-080300-004-a08 DT0023 Homo sapiens cDNA |
| 4406 | 16998 | 29812 | 0.65 | 0.0E+00 | BE778039.1 | EST_HUMAN | 601494985F1 NIH_MGC_87 Homo sapiens cDNA clone IMAGE:3868248 5' |
| 4410 | 17552 | 30537 | 5 | 0.0E+00 | AF174580.1 | NT | Homo sapiens F-box protein Fbx4 (FBL4) mRNA, partial cds |
| 4419 | 17660 | 30544 | 0.71 | 0.0E+00 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 4419 | 17660 | 30545 | 0.71 | 0.0E+00 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 4420 | 17661 | | 2.25 | 0.0E+00 | AI189844.1 | EST_HUMAN | q423106.x1 Soares_placenta_8to9weeks_2N6HP8to9W Homo sapiens cDNA clone IMAGE:1724576 3' |
| 4424 | 17664 | | 4.68 | 0.0E+00 | U14920.1 | NT | similar to contains MER20.b2 MER20 repetitive element ; |
| 4428 | 17668 | 30650 | 0.96 | 0.0E+00 | 5174574 | NT | Human CBFA3 (Cbfa3) gene, partial cds |
| 4445 | 17686 | 30665 | 0.72 | 0.0E+00 | 6563384 | NT | Homo sapiens myosin I/lymphoid or mixed-lineage leukemia (t(11horex (Drosophila) homolog); translocated to, 4 |
| 4445 | 17686 | 30666 | 0.72 | 0.0E+00 | 6563384 | NT | (VLLT4) mRNA |
| 4451 | 17691 | 30672 | 1.08 | 0.0E+00 | U10991.1 | NT | Homo sapiens protein kinase C, nu (PRKCN), mRNA |
| 4451 | 17691 | 30673 | 1.08 | 0.0E+00 | U10991.1 | NT | Homo sapiens protein kinase C, nu (PRKCN), mRNA |
| 4480 | 17800 | 30678 | 10.33 | 0.0E+00 | 6912281 | NT | Human G2 protein mRNA, partial cds |
| 4480 | 17820 | | 1.06 | 0.0E+00 | AF163047.2 | NT | Human G2 protein mRNA, partial cds |
| 4490 | 17830 | 30611 | 3.62 | 0.0E+00 | L14561.1 | NT | Homo sapiens COMPLEMENT COMPONENT C1q RECEPTOR (C1QR), mRNA |
| 4494 | 17834 | 30616 | 6.28 | 0.0E+00 | Z80780.1 | NT | Homo sapiens gap junction protein connexin-36 (CX36) gene, complete cds |
| 4494 | 17834 | 30617 | 6.28 | 0.0E+00 | Z80780.1 | NT | Homo sapiens plasma membrane calcium ATPase isoform 1 (ATP2B1) gene, alternative splice products, partial cds |
| 4500 | 17840 | 30623 | 1.59 | 0.0E+00 | X60483.1 | NT | H. sapiens H2B/h gene |
| 4500 | 17840 | 30624 | 1.59 | 0.0E+00 | X60483.1 | NT | H. sapiens H2B/h gene |
| 4505 | 17644 | 30630 | 10.05 | 0.0E+00 | 7662091 | NT | H. sapiens H4/d gene for H4 histone |
| 4505 | 17644 | 30631 | 10.05 | 0.0E+00 | 7662091 | NT | H. sapiens H4/d gene for H4 histone |
| 4517 | 17656 | 30645 | 14.1 | 0.0E+00 | 4885126 | NT | Homo sapiens KIAA0390 gene product (KIAA0390), mRNA |
| 4518 | 17657 | 30648 | 1.18 | 0.0E+00 | AJ271738.1 | NT | Homo sapiens KIAA0390 gene product (KIAA0390), mRNA |
| 4519 | 17658 | | 1.24 | 0.0E+00 | AL163207.2 | NT | Homo sapiens KIAA0390 gene product (KIAA0390), mRNA |
| 4522 | 17681 | 30648 | 1.2 | 0.0E+00 | AB037781.1 | NT | Homo sapiens caudal type homeo box transcription factor 4 (CDX4), mRNA |
| 4553 | 17691 | 30671 | 1.9 | 0.0E+00 | 7018456 | NT | Homo sapiens Xq pseudautosomal region; segment 2/2 |
| 4564 | 17702 | | 6.81 | 0.0E+00 | AF185953.1 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 4570 | 17708 | 30687 | 2.78 | 0.0E+00 | AJ249765.1 | NT | Homo sapiens mRNA for KIAA1360 protein, partial cds |
| 4570 | 17708 | 30688 | 2.78 | 0.0E+00 | AJ249765.1 | NT | Homo sapiens myosin regulatory light chain interacting protein (MIR), mRNA |
| 4574 | 17711 | 30694 | 0.69 | 0.0E+00 | W26179.1 | EST_HUMAN | Homo sapiens membrane-bound aminopeptidase P (XNPEP2) gene, complete cds |
| 4574 | 17711 | 30695 | 0.69 | 0.0E+00 | W26179.1 | EST_HUMAN | Homo sapiens ACTN2 gene for alpha-Actinin 2, exon 10 |
| 4574 | 17711 | 30696 | 0.69 | 0.0E+00 | W26179.1 | EST_HUMAN | Homo sapiens ACTN2 gene for alpha-Actinin 2, exon 10 |
| 4574 | 17711 | 30696 | 0.69 | 0.0E+00 | W26179.1 | EST_HUMAN | 24q7 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA |
| 4574 | 17711 | 30696 | 0.69 | 0.0E+00 | W26179.1 | EST_HUMAN | 24q7 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO. | Exon SEQ ID NO. | ORF SEQ ID NO. | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 4591 | 17728 | | 2.29 | 0.0E+00 | AF200629.1 | NT | Homo sapiens HPS1 gene, Intron 5 |
| 4610 | 17747 | 30726 | 0.65 | 0.0E+00 | T10233.1 | EST_HUMAN | seq1329 b4HB3MA Cg8-HAP-F1 Homo sapiens cDNA clone b4HB3MA-COT8-HAP-F205 6' |
| 4610 | 17747 | 30727 | 0.66 | 0.0E+00 | T10233.1 | EST_HUMAN | seq1329 b4HB3MA Cg8-HAP-F1 Homo sapiens cDNA clone b4HB3MA-COT8-HAP-F205 6' |
| 4613 | 17750 | | 0.89 | 0.0E+00 | M14123.1 | NT | Human endogenous retrovirus HERV-K10 |
| 4623 | 17760 | 30742 | 27.37 | 0.0E+00 | AW084964.1 | EST_HUMAN | xc88e08.x1 NCL_CGAP_Esc2 Homo sapiens cDNA clone IMAGE:2589446 3' similar to SW-AHNK_HUMAN |
| 4625 | 18470 | | 2.97 | 0.0E+00 | 8051619 | NT | Q09668 NEUROBLAST DIFFERENTIATION ASSOCIATED PROTEIN AHNK ; |
| 4627 | 17763 | 30745 | 1.48 | 0.0E+00 | AF016050.1 | NT | Homo sapiens LIM domain kinase 2 (LIMK2), transcript variant 2a, mRNA |
| 4631 | 17767 | | 8.47 | 0.0E+00 | AL163207.2 | NT | Homo sapiens vascular endothelial cell growth factor 165 receptor/neuropilin (VEGF165) mRNA, complete cds |
| 4633 | 17769 | 30750 | 0.97 | 0.0E+00 | AW381670.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C007 |
| 4640 | 17776 | 30757 | 1.3 | 0.0E+00 | AJ278120.1 | NT | PM1-HT0305-101199-002-d03 HT0305 Homo sapiens cDNA |
| 4640 | 17776 | 30758 | 1.3 | 0.0E+00 | AJ278120.1 | NT | Homo sapiens mRNA for putative ankyrin-repeat containing protein (ORF1) |
| 4642 | 17778 | 30760 | 1.06 | 0.0E+00 | 4768467 | NT | Homo sapiens G protein-coupled receptor 50 (GPR50) mRNA |
| 4643 | 17779 | 30761 | 2.07 | 0.0E+00 | AF108830.1 | NT | Homo sapiens serine-threonine protein kinase (MNBH) mRNA, complete cds |
| 4651 | 17787 | 30770 | 1.02 | 0.0E+00 | S78884.1 | NT | Homo sapiens ATP-sensitive inwardly rectifying K-channel subunit (KCNJ6/BIR1) gene, exon |
| 4652 | 17788 | 30771 | 1.2 | 0.0E+00 | AF111163.1 | NT | Homo sapiens pyrin (MEFV) gene, complete cds |
| 4652 | 17788 | 30772 | 1.2 | 0.0E+00 | AF111163.1 | NT | Homo sapiens pyrin (MEFV) gene, complete cds |
| 4661 | 18471 | 30783 | 3.19 | 0.0E+00 | 6005973 | NT | Homo sapiens zinc finger protein 185 (ZNF185), mRNA |
| 4666 | 17801 | 30788 | 20.19 | 0.0E+00 | AF208161.1 | NT | Homo sapiens synexin precursor, mRNA, complete cds |
| 4671 | 17806 | 30796 | 2.17 | 0.0E+00 | AF152337.1 | NT | Homo sapiens protodactin gamma C3 (PCDH-gamma-C3) mRNA, complete cds |
| 4674 | 17809 | 30789 | 2.17 | 0.0E+00 | 5484175 | NT | Homo sapiens zinc finger protein 211 (ZNF211), mRNA |
| 4685 | 17820 | 30808 | 59.97 | 0.0E+00 | 4503470 | NT | Homo sapiens eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) mRNA |
| 4693 | 17828 | 30814 | 0.73 | 0.0E+00 | 4505016 | NT | Homo sapiens low density lipoprotein receptor-related protein 6 (LRP6) mRNA, and translated products |
| 4697 | 17832 | 30817 | 1.84 | 0.0E+00 | 4503088 | NT | Homo sapiens chondroitin sulfate proteoglycan 4 (melanoma-associated) (CSPG4), mRNA |
| 4702 | 17837 | 30823 | 1.03 | 0.0E+00 | 4502556 | NT | Homo sapiens calcium/calmodulin-dependent protein kinase IV (CAMK4) mRNA |
| 4707 | 17842 | | 3.19 | 0.0E+00 | L35485.1 | NT | Homo sapiens iduronate sulphate sulphatase (IDS) gene, complete cds |
| 4709 | 17844 | 30826 | 15.03 | 0.0E+00 | 7682091 | NT | Homo sapiens KIAA0390 gene product (KIAA0390), mRNA |
| 4709 | 17844 | 30827 | 15.03 | 0.0E+00 | 7682091 | NT | Homo sapiens KIAA0390 gene product (KIAA0390), mRNA |
| 4724 | 17859 | 30841 | 2.87 | 0.0E+00 | AF143314.1 | NT | Homo sapiens PTEN (PTEN) gene, exons 3 through 5 |
| 4727 | 17862 | 30844 | 11.57 | 0.0E+00 | AJ245418.1 | NT | Homo sapiens mRNA for G7c protein (G7c gene located in the class III region of the major histocompatibility complex) |

Page 514 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 4727 | 17882 | 30845 | 11.57 | 0.0E+00 | AJ245418.1 | NT | Homo sapiens mRNA for G7c protein (G7c gene located in the class III region of the major histocompatibility complex) |
| 4746 | 17881 | | 1.68 | 0.0E+00 | AA174072.1 | EST_HUMAN | z918g08.e1 Striatogene fetal retina 937202 Homo sapiens cDNA clone IMAGE:609854 3' |
| 4749 | 17884 | | 1.98 | 0.0E+00 | 7657410 | NT | Homo sapiens odz (odd Ozler-m, Drosophila) homolog 1 (ODZ1), mRNA |
| 4751 | 17886 | | 3.31 | 0.0E+00 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 4752 | 17887 | 30893 | 1.33 | 0.0E+00 | AF184110.1 | NT | Homo sapiens cyclophilin-related protein (NKTR) gene, complete cds |
| 4753 | 17888 | 30899 | 4.93 | 0.0E+00 | AL163300.2 | NT | Homo sapiens chromosome 21 segment HS21C100 |
| 4754 | 17889 | | 1.95 | 0.0E+00 | AB037521.1 | NT | Homo sapiens gene for neurite protein, partial cds |
| 4758 | 17891 | 30870 | 0.69 | 0.0E+00 | AF196658.1 | NT | Homo sapiens DNA mismatch repair protein (MLH3) gene, complete cds |
| 4761 | 17896 | 30876 | 1.06 | 0.0E+00 | AL162331.1 | NT | Novel human gene mapping to chromosome 1 |
| 4764 | 17899 | 30879 | 31.32 | 0.0E+00 | 4557887 | NT | Homo sapiens keratin 18 (KRT18) mRNA |
| 4764 | 17899 | 30880 | 31.32 | 0.0E+00 | 4557887 | NT | Homo sapiens keratin 18 (KRT18) mRNA |
| 4765 | 17900 | 30881 | 1.42 | 0.0E+00 | AF153819.1 | NT | Homo sapiens inwardly-rectifying potassium channel Kir2.1 (KCNJ2) gene, exon 2 and complete cds |
| 4765 | 17900 | 30882 | 1.42 | 0.0E+00 | AF153819.1 | NT | Homo sapiens inwardly-rectifying potassium channel Kir2.1 (KCNJ2) gene, exon 2 and complete cds |
| 4766 | 17901 | 30883 | 2.62 | 0.0E+00 | AF167441.1 | NT | Mus musculus E-cadherin binding protein E7 mRNA, complete cds |
| 4776 | 17911 | 30895 | 0.98 | 0.0E+00 | AB028970.1 | NT | Homo sapiens mRNA for KIAA1047 protein, partial cds |
| 4776 | 17911 | 30896 | 0.96 | 0.0E+00 | AB028970.1 | NT | Homo sapiens mRNA for KIAA1047 protein, partial cds |
| 4781 | 17916 | 30902 | 17.22 | 0.0E+00 | Y18890.1 | NT | Human endogenous retrovirus type K (HERV-K), gag, pol and env genes |
| 4787 | 17922 | 30910 | 1.93 | 0.0E+00 | BE081527.1 | EST_HUMAN | QV2-BT0935-160400-142-H05 BT0935 Homo sapiens cDNA |
| 4788 | 17923 | 30911 | 1.37 | 0.0E+00 | AA418246.1 | EST_HUMAN | z996b07.s1 Soares_NhlhMPu_S1 Homo sapiens cDNA clone IMAGE:767605 3' |
| 4794 | 17929 | | 1.9 | 0.0E+00 | AF086641.1 | NT | Homo sapiens truncated tenascin XB (TNXB) gene, partial cds and TNXA gene recombination breakpoint region |
| 4799 | 17934 | 30921 | 1.3 | 0.0E+00 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 4799 | 17934 | 30922 | 1.3 | 0.0E+00 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 4800 | 17935 | 30923 | 2.72 | 0.0E+00 | AB037820.1 | NT | Homo sapiens mRNA for KIAA1399 protein, partial cds |
| 4800 | 17935 | 30924 | 2.72 | 0.0E+00 | AB037820.1 | NT | Homo sapiens mRNA for KIAA1399 protein, partial cds |
| 4801 | 17936 | 30925 | 3.06 | 0.0E+00 | M74099.1 | NT | Human displacement protein (CCAAT) mRNA |
| 4804 | 17939 | 30927 | 2.08 | 0.0E+00 | 6453812 | NT | Homo sapiens butyrophilin, subfamily 2, member A2 (BTN2A2), mRNA |
| 4804 | 17939 | 30928 | 2.06 | 0.0E+00 | 6453812 | NT | Homo sapiens butyrophilin, subfamily 2, member A2 (BTN2A2), mRNA |
| 4808 | 13367 | 28400 | 2.93 | 0.0E+00 | T56945.1 | EST_HUMAN | y83g04.i2 Striatogene fetal spleen (#937205) Homo sapiens cDNA clone IMAGE:68310 5' |
| 4808 | 13367 | 28401 | 2.93 | 0.0E+00 | T56945.1 | EST_HUMAN | y83g04.i2 Striatogene fetal spleen (#937205) Homo sapiens cDNA clone IMAGE:68310 5' |
| 4810 | 17943 | | 1.18 | 0.0E+00 | BE278730.1 | EST_HUMAN | 601158935F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3505621 5' |

Page 515 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|-----------------------------|-------------------------------|--|
| 4814 | 17947 | 30932 | 1.13 | 0.0E+00 | BE390050.1 | EST_HUMAN | 601285246FT NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3607087 5' |
| 4830 | 17963 | 30951 | 0.95 | 0.0E+00 | 5720817 | NT | Homo sapiens ecotropic viral integration site 2B (EVI2B), mRNA |
| 4830 | 17963 | 30952 | 0.95 | 0.0E+00 | 5720817 | NT | Homo sapiens ecotropic viral integration site 2B (EVI2B), mRNA |
| 4835 | 17968 | 30956 | 50.79 | 0.0E+00 | M80902.1 | NT | Human AHNAK nucleoprotein mRNA, 5' end |
| 4838 | 17971 | 30959 | 3.07 | 0.0E+00 | M69197.1 | NT | Human haptoglobin and haptoglobin-related protein (HP and HPR) genes, complete cds |
| 4838 | 17971 | 30960 | 3.07 | 0.0E+00 | M69197.1 | NT | Human haptoglobin and haptoglobin-related protein (HP and HPR) genes, complete cds |
| 4842 | 17975 | 30965 | 2.07 | 0.0E+00 | AF184110.1 | NT | Homo sapiens cytochrome P-450 2C8 (CYP2C8) gene, complete cds |
| 4844 | 17977 | 30967 | 1.05 | 0.0E+00 | 7692479 | NT | Homo sapiens KIAA1084 protein (KIAA1084), mRNA |
| 4846 | 17979 | 30968 | 1.73 | 0.0E+00 | 7692479 | NT | Homo sapiens KIAA1084 protein (KIAA1084), mRNA |
| 4851 | 17984 | 30972 | 1.15 | 0.0E+00 | U07583.1 | NT | Human proto-oncogene tyrosine-protein kinase (ABL) gene, exon 1a and, exon 2-10, complete cds |
| 4856 | 17989 | 30977 | 1.29 | 0.0E+00 | AL098857.1 | NT | Novel human mRNA from chromosome 1, which has similarities to BAT2 genes |
| 4872 | 18005 | 30987 | 0.74 | 0.0E+00 | 7304922 | NT | Homo sapiens bromodomain adjacent to zinc finger domain, 2B (BAZ2B), mRNA |
| 4872 | 18005 | 30988 | 0.74 | 0.0E+00 | 7304922 | NT | Homo sapiens bromodomain adjacent to zinc finger domain, 2B (BAZ2B), mRNA |
| 4882 | 18012 | 30996 | 1.26 | 0.0E+00 | AF028801.1 | NT | Homo sapiens alpha-3 type X collagen (COL3A3) gene, promoter region, and exons 1-28 |
| 4886 | 18016 | 31000 | 0.82 | 0.0E+00 | 7019320 | NT | Homo sapiens protein x0008 (AD013), mRNA |
| 4888 | 18016 | 31001 | 0.82 | 0.0E+00 | 7019320 | NT | Homo sapiens protein x0008 (AD013), mRNA |
| 4907 | 18037 | 31026 | 1.29 | 0.0E+00 | AW444637.1 | EST_HUMAN | UHH-B13-ajw-c-04-Q-U1-1st NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2733284 3' |
| 4911 | 18041 | 31031 | 1.18 | 0.0E+00 | AF303134.1 | NT | Homo sapiens aldehyde dehydrogenase 12 (ALDH12) mRNA, complete cds |
| 4913 | 18043 | | 2.01 | 0.0E+00 | AF083242.1 | NT | Homo sapiens HSPC024-iso mRNA, complete cds |
| 4924 | 18054 | | 1.33 | 0.0E+00 | M65169.1 | NT | Human connexin 43 processed pseudogene |
| 4925 | 18055 | | 0.64 | 0.0E+00 | AW339253.1 | EST_HUMAN | xz88d06.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2871371 3' |
| 4966 | 18065 | | 2.87 | 0.0E+00 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 4967 | 18066 | 31072 | 1.95 | 0.0E+00 | 4505394 | NT | Homo sapiens nidogen (nidogen) (NID) mRNA |
| 4970 | 18069 | 31075 | 1.09 | 0.0E+00 | X87206.1 | NT | M.fascicularis mRNA for metalloproteinase-like, disintegrin-like protein, IVa |
| 4972 | 18101 | 31077 | 0.99 | 0.0E+00 | AF084479.1 | NT | Homo sapiens Williams-Beuren syndrome deletion transcript 9 (WBSOR9) mRNA, complete cds |
| 4973 | 18102 | 31078 | 1.04 | 0.0E+00 | AF097416.1 | NT | Mus musculus zinc finger transcription factor Kalso mRNA, complete cds |
| 4974 | 18103 | 31079 | 4.54 | 0.0E+00 | 4603768 | NT | Homo sapiens fragile X mental retardation 2 (FMR2) mRNA |
| 4976 | 18105 | 31081 | 9.98 | 0.0E+00 | 4685048 | NT | Homo sapiens actin, alpha, cardiac muscle (ACTC), mRNA |
| 4977 | 18106 | 31082 | 1 | 0.0E+00 | P52740 | SWISSPROT | ZINC FINGER PROTEIN 132 |
| 4982 | 18111 | 31088 | 3.41 | 0.0E+00 | 8923080 | NT | Homo sapiens hypothetical protein FLJ20073 (FLJ20073), mRNA |
| 4985 | 18114 | 31091 | 1.35 | 0.0E+00 | M94081.1 | NT | Human Tcr-C-delta gene, exons 1-4; Tcr-V-delta gene, exons 1-2; T-cell receptor alpha (Tcr-alpha) gene, J1-J61 segments; and Tcr-C-alpha gene, exons 1-4 |

Page 516 of 550
Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 4885 | 18114 | 31092 | 1.35 | 0.0E+00 | M94081.1 | NT | Human Tcr-C-delta gene, exons 1-4; Tcr-V-delta gene, exons 1-2; T-cell receptor alpha (Tcr-alpha) gene, J1-J61 segments; and Tcr-C-alpha gene, exons 1-4 |
| 4887 | 18116 | 31094 | 1.3 | 0.0E+00 | X94028.1 | NT | H.sapiens MeCP-2 gene |
| 4987 | 18116 | 31095 | 1.3 | 0.0E+00 | X94528.1 | NT | H.sapiens MeCP-2 gene |
| 4980 | 18116 | 31098 | 1.48 | 0.0E+00 | M55532.1 | NT | Human collagenase type IV (CLG4) gene, exon 2 |
| 4991 | 18120 | 31099 | 2.55 | 0.0E+00 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 5000 | 18126 | 31104 | 1.08 | 0.0E+00 | 5032150 | NT | Homo sapiens TATA box binding protein (TBP)-associated factor, RNA polymerase II, 1, 28kD (TAF21) |
| 5007 | 18136 | 31110 | 1.19 | 0.0E+00 | X92841.1 | NT | H.sapiens MICA gene |
| 5009 | 18138 | 31112 | 1.32 | 0.0E+00 | 4585642 | NT | Homo sapiens zinc finger protein (KIAA0412) mRNA |
| 5010 | 18139 | 31113 | 1.39 | 0.0E+00 | AB014533.1 | NT | Homo sapiens mRNA for KIAA0833 protein, partial cds |
| 5011 | 18140 | 31114 | 2.74 | 0.0E+00 | 6877648 | NT | Mus musculus zinc finger protein interacting with K protein 1 (Zik1), mRNA |
| 5012 | 18141 | 31115 | 1.02 | 0.0E+00 | 5174560 | NT | Homo sapiens meningioma expressed antigen 6 (colloid-ocil proline-rich) (MGEA6), mRNA |
| 5013 | 18142 | 31116 | 0.94 | 0.0E+00 | BE007935.1 | EST_HUMAN | QV0-BN0147-280400-213-g11 BN0147 Homo sapiens cDNA |
| 5013 | 18142 | 31117 | 0.94 | 0.0E+00 | BE007935.1 | EST_HUMAN | QV0-BN0147-280400-213-g11 BN0147 Homo sapiens cDNA |
| 5014 | 18143 | 31118 | 4.26 | 0.0E+00 | 4758199 | NT | Homo sapiens deaminoplasmin (DPI, DPII) (DSP) mRNA |
| 5016 | 18145 | 31120 | 1.79 | 0.0E+00 | 5174560 | NT | Homo sapiens meningioma expressed antigen 6 (colloid-ocil proline-rich) (MGEA6), mRNA |
| 5016 | 18145 | 31121 | 1.79 | 0.0E+00 | 5174560 | NT | Homo sapiens meningioma expressed antigen 6 (colloid-ocil proline-rich) (MGEA6), mRNA |
| 5017 | 18146 | 31122 | 0.98 | 0.0E+00 | 7705546 | NT | Homo sapiens zinc-finger DNA-binding protein (HUMHOXY1), mRNA |
| 5020 | 18149 | 31127 | 11.02 | 0.0E+00 | AF056066.1 | NT | Homo sapiens MHC class 1 region |
| 5022 | 18151 | | 2.46 | 0.0E+00 | 4505508 | NT | Homo sapiens opiod receptor, delta 1 (OPRD1) mRNA |
| 5023 | 18152 | 31130 | 2.77 | 0.0E+00 | AF091711.1 | NT | Homo sapiens splice variant AXP350 mRNA, partial cds |
| 5036 | 18164 | 31140 | 1.55 | 0.0E+00 | 4503684 | NT | Homo sapiens farnesyl diphosphate synthase (farnesyl pyrophosphate synthetase, dimethylallyltransferase, geranyltransferase) (FDFS) mRNA |
| 5040 | 18168 | | 1.17 | 0.0E+00 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 5042 | 18170 | 31145 | 1.14 | 0.0E+00 | D15050.1 | NT | Human mRNA for transcription factor AREB6, complete cds |
| 5042 | 18170 | 31146 | 1.14 | 0.0E+00 | D15050.1 | NT | Human mRNA for transcription factor AREB6, complete cds |
| 5043 | 18171 | 31147 | 7.67 | 0.0E+00 | AB006825.1 | NT | Homo sapiens mRNA for KIAA0287 gene, partial cds |
| 5043 | 18171 | 31148 | 7.67 | 0.0E+00 | AB006825.1 | NT | Homo sapiens mRNA for KIAA0287 gene, partial cds |
| 5049 | 18177 | 31154 | 1.39 | 0.0E+00 | 4504082 | NT | Homo sapiens glypican 4 (GPC4) mRNA |
| 5049 | 18177 | 31155 | 1.39 | 0.0E+00 | 4504082 | NT | Homo sapiens glypican 4 (GPC4) mRNA |
| 5097 | 18195 | 31169 | 1.28 | 0.0E+00 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 5073 | 18201 | 31173 | 0.71 | 0.0E+00 | 7662319 | NT | Homo sapiens KIAA0806 gene product (KIAA0806), mRNA |
| 5082 | 18210 | 31182 | 1.15 | 0.0E+00 | 8922928 | NT | Homo sapiens hypothetical protein FLJ11180 (FLJ11180), mRNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 5087 | 18215 | | 7.66 | 0.0E+00 | U14987.1 | NT | Human ribosomal protein L21 mRNA, complete cds |
| 5087 | 18225 | 31197 | 1.25 | 0.0E+00 | M10976.1 | NT | Human endogenous retroviral DNA (4-1), complete retroviral segment |
| 5099 | 18227 | | 2.97 | 0.0E+00 | BE408693.1 | EST_HUMAN | 601303729F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3638118 5' |
| 5102 | 18230 | 31201 | 4.85 | 0.0E+00 | 4738199 | NT | Homo sapiens desmoplakin (DPI, DPL1) (DSP) mRNA |
| 5110 | 18238 | 31205 | 1.43 | 0.0E+00 | AB028988.1 | NT | Homo sapiens mRNA for KIAA1043 protein, partial cds |
| 5121 | 18247 | 31212 | 2.32 | 0.0E+00 | 8923441 | NT | Homo sapiens hypothetical protein FLJ20477 (FLJ20477), mRNA |
| 5121 | 18247 | 31213 | 2.32 | 0.0E+00 | 8923441 | NT | Homo sapiens hypothetical protein FLJ20477 (FLJ20477), mRNA |
| 5135 | 18259 | 31225 | 0.72 | 0.0E+00 | AA601248.1 | EST_HUMAN | no14g09.st NCI_CGAP_Phet Homo sapiens cDNA clone IMAGE:1100704 3' similar to TR:E239140 |
| 5135 | 18259 | 31226 | 0.72 | 0.0E+00 | AA601248.1 | EST_HUMAN | E239140 SPALT PROTEIN; |
| 5135 | 18259 | 31227 | 0.72 | 0.0E+00 | AA601248.1 | EST_HUMAN | no14g09.st NCI_CGAP_Phet Homo sapiens cDNA clone IMAGE:1100704 3' similar to TR:E239140 |
| 5139 | 18282 | 31229 | 2.09 | 0.0E+00 | U82671.2 | NT | E239140 SPALT PROTEIN; |
| 5139 | 18282 | 31230 | 2.09 | 0.0E+00 | U82671.2 | NT | E239140 SPALT PROTEIN; |
| 5148 | 13440 | 28472 | 0.72 | 0.0E+00 | AF195658.1 | NT | Homo sapiens chromosome Xq28 melanoma antigen family A2a (MAGEA2A), melanoma antigen family A12 (MAGEA12), melanoma antigen family A2b (MAGEA2B), melanoma antigen family A3 (MAGEA3), caltractin (CALT), NAD(P)H dehydrogenase-like protein (NSDHL), and L1> |
| 5148 | 18270 | 31247 | 1.09 | 0.0E+00 | 4758225 | NT | Homo sapiens DNA mismatch repair protein (MLH3) gene, complete cds |
| 5160 | 18282 | 31247 | 0.84 | 0.0E+00 | U63588.1 | NT | Homo sapiens E2F transcription factor 2 (E2F2) mRNA |
| 5167 | 18289 | | 1.69 | 0.0E+00 | AL163209.2 | NT | Homo sapiens MHC class 1 region |
| 5170 | 18282 | 31288 | 18.98 | 0.0E+00 | D50687.1 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 5182 | 18304 | 31288 | 0.92 | 0.0E+00 | 4507720 | NT | Homo sapiens gamma-cytoplasmic actin (ACTGP3) pseudogene |
| 5195 | 18318 | 31287 | 3.55 | 0.0E+00 | X52988.1 | NT | Homo sapiens tlin (TTN) mRNA |
| 5197 | 18319 | 31288 | 0.81 | 0.0E+00 | X72791.1 | NT | Bacillus amyloquifaciens sacB gene for levansucrase (EC 2.4.1.10) |
| 6213 | 18334 | 31305 | 1.82 | 0.0E+00 | AF240635.1 | NT | Human endogenous retrovirus mRNA for gag protein |
| 6213 | 18334 | 31306 | 1.82 | 0.0E+00 | AF240635.1 | NT | Homo sapiens vascular endothelial cadherin 2 mRNA, complete cds |
| 6214 | 18335 | 31307 | 1.18 | 0.0E+00 | 5454153 | NT | Homo sapiens vascular endothelial cadherin 2 mRNA, complete cds |
| 6232 | 18354 | 31322 | 0.82 | 0.0E+00 | 5902055 | NT | Homo sapiens cyclophilin (USA-CYP) mRNA |
| 6234 | 18356 | 31323 | 4.58 | 0.0E+00 | M10805.1 | NT | Homo sapiens ring finger protein (RNIF), mRNA |
| 6234 | 18356 | 31324 | 4.58 | 0.0E+00 | M10805.1 | NT | Human cellular fibronectin mRNA |
| 6236 | 18358 | 31327 | 0.8 | 0.0E+00 | Y08032.1 | NT | Human cellular fibronectin mRNA |
| 6236 | 18358 | 31327 | 0.8 | 0.0E+00 | Y08032.1 | NT | Human endogenous retrovirus-K, LTR US and gag gene |

Page 518 of 550

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 5250 | 18371 | 31338 | 0.65 | 0.0E+00 | 5802081 | NT | Homo sapiens solute carrier family 6 (inositol transporters), member 3 (SLC5A3), mRNA |
| 5253 | 18373 | 31339 | 1.91 | 0.0E+00 | AF14250.1 | NT | Homo sapiens SH2-containing protein Nsp2 mRNA, complete cds |
| 5266 | 18383 | 31351 | 1.2 | 0.0E+00 | 8923822 | NT | Homo sapiens potassium inwardly-rectifying channel, subfamily J, member 16 (KCNU16), mRNA |
| 5266 | 18385 | 31352 | 1.2 | 0.0E+00 | 8923822 | NT | Homo sapiens potassium inwardly-rectifying channel, subfamily J, member 16 (KCNU16), mRNA |
| 5287 | 18386 | 31353 | 0.59 | 0.0E+00 | 7708245 | NT | Homo sapiens 4F2 light chain (LOC51587), mRNA |
| 5287 | 18386 | 31354 | 0.59 | 0.0E+00 | 7708245 | NT | Homo sapiens 4F2 light chain (LOC51587), mRNA |
| 5274 | 18393 | 31362 | 1.89 | 0.0E+00 | AL163279.2 | NT | Homo sapiens chromosome 21 segment HS21C079 |
| 18397 | 18397 | 31384 | 1.03 | 0.0E+00 | AA426183.1 | EST_HUMAN | zW44f12.r1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:772843 5' |
| 5278 | 18397 | 31365 | 1.03 | 0.0E+00 | AA426183.1 | EST_HUMAN | zW44f12.r1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:772843 5' |
| 5280 | 18408 | 31375 | 0.93 | 0.0E+00 | 7657442 | NT | Homo sapiens proteobactin 11 (PCDH11), mRNA |
| | | | | | | | Homo sapiens core1 UDP-galactase:N-acetylgalactosamine-alpha-R beta 1,3-galactosyltransferase (C1GALT1) mRNA, complete cds |
| 5294 | 18412 | 31378 | 1.47 | 0.0E+00 | AF155582.1 | NT | Homo sapiens interleukin 1 receptor accessory protein (L1RAP) gene, exon 4 |
| 5297 | 18472 | 31382 | 1.84 | 0.0E+00 | AF167335.1 | NT | AML1-EV1-14AML1-EV1-1 fusion protein (rearranged translocation) [human, leukemic cell line SKH1, mRNA Mutant, 5938 nt] |
| 5300 | 18417 | 31386 | 0.94 | 0.0E+00 | S69002.1 | NT | Multiple sclerosis associated retrovirus polyprotein (pol) mRNA, partial cds |
| 5301 | 18418 | 31387 | 1.93 | 0.0E+00 | AF009668.1 | NT | Multiple sclerosis associated retrovirus polyprotein (pol) mRNA, partial cds |
| 5301 | 18418 | 31388 | 1.93 | 0.0E+00 | AF009668.1 | NT | Homo sapiens glypican 3 (GPC3) mRNA |
| 5303 | 18420 | 31390 | 24.35 | 0.0E+00 | 5360213 | NT | Homo sapiens acidic 82 kDa protein mRNA (HSU16552), mRNA |
| 5306 | 18423 | 31393 | 1.07 | 0.0E+00 | 7657203 | NT | H.sapiens mRNA for YRRM2 |
| 5319 | 18433 | 31405 | 0.79 | 0.0E+00 | X70600.1 | NT | U03909.x1 NCL CGAP_P128 Homo sapiens cDNA clone IMAGE:2283376 3' similar to SW:RASD_D10DI |
| 5321 | 18428 | 29444 | 0.85 | 0.0E+00 | AI685950.1 | EST_HUMAN | P03987 RAS-LIKE PROTEIN RASD ; |
| 5328 | 18441 | 31410 | 0.98 | 0.0E+00 | AF245703.1 | NT | Homo sapiens toll-like receptor 8 (TLR8) mRNA, complete cds |
| 5328 | 18441 | 31411 | 0.98 | 0.0E+00 | AF245703.1 | NT | Homo sapiens toll-like receptor 8 (TLR8) mRNA, complete cds |
| 5333 | 18446 | 31414 | 0.96 | 0.0E+00 | AF163208.2 | NT | Homo sapiens chromosome 21 segment HS21C006 |
| 5338 | 18451 | 31419 | 110.9 | 0.0E+00 | AF008061.1 | NT | Homo sapiens placental growth hormone isoform hGH-V/3 (hGH-V) mRNA, complete cds |
| 5340 | 18453 | 31421 | 1.06 | 0.0E+00 | AV726632.1 | EST_HUMAN | AV726632 HTC Homo sapiens cDNA clone HTGC6A03 5' |
| | | | | | | | Homo sapiens polycystic kidney disease (polycystin) and REJ (sperm receptor for egg jelly, see urchin homolog)-like (PKDREJ) mRNA |
| 5344 | 18457 | 31423 | 1.29 | 0.0E+00 | 6174632 | NT | Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA |
| 5346 | 18459 | 31424 | 1.18 | 0.0E+00 | 4502582 | NT | Homo sapiens acylase 8, nuclear gene encoding mitochondrial protein, oxon 16 |
| 5355 | 18482 | | 2.45 | 0.0E+00 | AF030393.1 | NT | Homo sapiens keratin 12 (KRT12) gene, complete cds |
| 5366 | 18559 | 31436 | 2.17 | 0.0E+00 | AF137286.1 | NT | Homo sapiens keratin 12 (KRT12) gene, complete cds |
| 5368 | 18569 | 31437 | 2.17 | 0.0E+00 | AF137286.1 | NT | Homo sapiens keratin 12 (KRT12) gene, complete cds |
| 5368 | 18590 | 31562 | 1.21 | 0.0E+00 | AI634854.1 | EST_HUMAN | wp05908.x1 NCL CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2484084 3' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 5391 | 18593 | 31565 | 1.2 | 0.0E+00 | 9256579 | NT | Homo sapiens protocadherin alpha 13 (PCDH13), mRNA |
| 5406 | 18598 | 31580 | 3.52 | 0.0E+00 | BE931080.1 | EST_HUMAN | RC3-GN0076-310800-013-b03 GN0078 Homo sapiens cDNA |
| 5410 | 18612 | 31584 | 3.5 | 0.0E+00 | AF182034.1 | NT | Homo sapiens polycystic kidney disease-like 2 protein (PKDL2) mRNA, complete cds |
| 5410 | 18612 | 31585 | 3.5 | 0.0E+00 | AF182034.1 | NT | Homo sapiens polycystic kidney disease-like 2 protein (PKDL2) mRNA, complete cds |
| 5418 | 18619 | 31584 | 8.57 | 0.0E+00 | X66163.1 | NT | H. sapiens immunoglobulin heavy chain gene, variable region |
| 5418 | 18619 | 31595 | 8.57 | 0.0E+00 | X66163.1 | NT | H. sapiens immunoglobulin heavy chain gene, variable region |
| 5499 | 18698 | 31714 | 6.41 | 0.0E+00 | BE676498.1 | EST_HUMAN | 7110c06.x1 NCL CGAP_QLL1 Homo sapiens cDNA clone IMAGE:3294250 3' |
| 5500 | 18699 | 31715 | 1.7 | 0.0E+00 | BE220753.1 | EST_HUMAN | h89a02.x1 NCL CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3294250 3' |
| 5501 | 18700 | 31716 | 1.57 | 0.0E+00 | BE794412.1 | EST_HUMAN | P42694 HYPOTHETICAL PROTEIN KIAA0054.; |
| 5501 | 18700 | 31717 | 1.57 | 0.0E+00 | BE794412.1 | EST_HUMAN | 601589422F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943804 5' |
| 5502 | 18701 | 31718 | 0.72 | 0.0E+00 | AI169142.1 | EST_HUMAN | q04a04.x1 Scores_placenta_8b06wvckc_2NbpP8b0W Homo sapiens cDNA clone IMAGE:1722702 3' |
| 5506 | 18705 | 31721 | 5.23 | 0.0E+00 | M28908.1 | NT | similar to SW:12D3_DROME P49846 TRANSCRIPTION INITIATION FACTOR TFID 86 KD SUBUNIT ; |
| 5510 | 18708 | 31724 | 1.3 | 0.0E+00 | AI791393.1 | EST_HUMAN | Homo sapiens eosinophil peroxidase (EPP) gene, exon 7 |
| 5520 | 18708 | 31732 | 4.62 | 0.0E+00 | 11421038 | NT | 0168a03.y5 NCL CGAP_Q045 Homo sapiens cDNA clone IMAGE:1472162 5' similar to gb:IM18512 IG |
| 5530 | 18727 | | 4 | 0.0E+00 | BF685662.1 | EST_HUMAN | Homo sapiens Sp4 transcription factor (SP4), mRNA |
| 5531 | 18728 | 31743 | 0.78 | 0.0E+00 | AU134406.1 | EST_HUMAN | 802118928F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4276254 5' |
| 5531 | 18728 | 31744 | 0.78 | 0.0E+00 | AU134406.1 | EST_HUMAN | AU134406 OVARC1 Homo sapiens cDNA clone OVARC1001894 5' |
| 5537 | 18734 | 31751 | 0.61 | 0.0E+00 | BE53857.1 | EST_HUMAN | AU134406 OVARC1 Homo sapiens cDNA clone OVARC1001894 5' |
| 5546 | 18743 | 31777 | 1.63 | 0.0E+00 | BE282784.1 | EST_HUMAN | 601061489F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3447839 5' |
| 5551 | 18748 | 31763 | 1.65 | 0.0E+00 | BF528328.1 | EST_HUMAN | 601105891F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2888310 5' |
| 5551 | 18748 | 31784 | 1.65 | 0.0E+00 | BF528328.1 | EST_HUMAN | 602071372F1 NCL CGAP_Bn64 Homo sapiens cDNA clone IMAGE:4214272 5' |
| 5570 | 20121 | 39535 | 1.71 | 0.0E+00 | 4557364 | NT | 602071372F1 NCL CGAP_Bn64 Homo sapiens cDNA clone IMAGE:4214272 5' |
| 5573 | 18769 | 31811 | 1.29 | 0.0E+00 | AB007935.1 | NT | Homo sapiens Bloom syndrome (BLM) mRNA |
| 5573 | 18769 | 31812 | 1.29 | 0.0E+00 | AB007935.1 | NT | Homo sapiens mRNA for KIAA0468 protein, partial cds |
| 5577 | 18772 | 31816 | 8.95 | 0.0E+00 | AF257737.1 | NT | Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds |
| 5577 | 18772 | 31817 | 8.95 | 0.0E+00 | AF257737.1 | NT | Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds |
| 5590 | 18785 | 31831 | 1.34 | 0.0E+00 | D26535.1 | NT | Human gene for dihydropyrimidine succinyltransferase, complete cds (exon 1-16) |
| 5590 | 18785 | 31832 | 1.34 | 0.0E+00 | D26535.1 | NT | Human gene for dihydropyrimidine succinyltransferase, complete cds (exon 1-16) |
| 5606 | 18801 | 31887 | 2.01 | 0.0E+00 | 11420819 | NT | Homo sapiens olfactory receptor, family 2, subfamily F, member 1 (OR2F1), mRNA |
| 5612 | 18808 | 31873 | 0.79 | 0.0E+00 | Z38133.1 | NT | H. sapiens mRNA for myosin |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 5630 | 18824 | 31898 | 0.73 | 0.0E+00 | D81694.1 | EST_HUMAN | HUM418D05B Clontech human fetal brain polyA+ mRNA (#6535) Homo sapiens cDNA clone GEN-418D05 5' |
| 5630 | 18824 | 31899 | 0.73 | 0.0E+00 | D81694.1 | EST_HUMAN | HUM418D05B Clontech human fetal brain polyA+ mRNA (#6535) Homo sapiens cDNA clone GEN-418D05 5' |
| 5633 | 18827 | 31903 | 2.92 | 0.0E+00 | BF529931.1 | EST_HUMAN | 602042322F1 NCL_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4178988 5' |
| 5633 | 18827 | 31904 | 2.92 | 0.0E+00 | BF529931.1 | EST_HUMAN | 602042322F1 NCL_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4178988 5' |
| 5638 | 18832 | 31908 | 2.92 | 0.0E+00 | BF513139.1 | EST_HUMAN | 601897658F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4128815 5' |
| 5649 | 18843 | 32124 | 4.23 | 0.0E+00 | 11434392 | NT | Homo sapiens calcium channel, voltage-dependent, alpha 1G subunit (CACNA1G), mRNA |
| 5664 | 18858 | 32141 | 0.69 | 0.0E+00 | AI928181.1 | EST_HUMAN | wc95b02.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2463051 3' similar to TR:O75054 |
| 5664 | 18858 | 32142 | 0.69 | 0.0E+00 | AI928181.1 | EST_HUMAN | wc95b02.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2463051 3' similar to TR:O75054 |
| 5682 | 18876 | 32165 | 1.3 | 0.0E+00 | BE260777.1 | EST_HUMAN | O75054 KIAA0468 PROTEIN ; |
| 5691 | 18886 | 32185 | 3.95 | 0.0E+00 | AW867316.1 | EST_HUMAN | 601150263F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3502809 5' |
| 5705 | 18898 | 32190 | 2.49 | 0.0E+00 | BE292889.1 | EST_HUMAN | MFO-SN0037-030400-001-h07 SN0037 Homo sapiens cDNA |
| 5705 | 18898 | 32191 | 2.49 | 0.0E+00 | BE292889.1 | EST_HUMAN | 601105291F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2987803 5' |
| 5725 | 18918 | 32212 | 1.7 | 0.0E+00 | 11420819 | NT | 601105291F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2987803 5' |
| 5725 | 18918 | 32213 | 1.7 | 0.0E+00 | 11420819 | NT | Homo sapiens olfactory receptor, family 2, subfamily F, member 1 (OR2F1), mRNA |
| 5733 | 18926 | 32221 | 4.16 | 0.0E+00 | AF084254.1 | NT | Homo sapiens olfactory receptor, family 2, subfamily F, member 1 (OR2F1), mRNA |
| 5733 | 18926 | 32222 | 4.16 | 0.0E+00 | AF084254.1 | NT | Homo sapiens very long-chain acyl-CoA synthetase homolog 1 mRNA, complete cds |
| 5740 | 18933 | 32232 | 2.84 | 0.0E+00 | AJ224639.1 | NT | Homo sapiens very long-chain acyl-CoA synthetase homolog 1 mRNA, complete cds |
| 5740 | 18933 | 32233 | 2.84 | 0.0E+00 | AJ224639.1 | NT | Homo sapiens Surf-5 and Surf-6 genes |
| 5769 | 18961 | 32262 | 1 | 0.0E+00 | AI198516.1 | EST_HUMAN | Homo sapiens Surf-5 and Surf-6 genes |
| 5773 | 18965 | 32268 | 7.55 | 0.0E+00 | M83719.1 | EST_HUMAN | q94g10.x1 Soares_placenta_8to9weeks_2NHP8to8W Homo sapiens cDNA clone IMAGE:1757730 3' similar to SW:CADC HUMAN P55289 BRAIN-CADHERIN PRECURSOR ; |
| 5780 | 18972 | 32277 | 4.52 | 0.0E+00 | AW405472.1 | EST_HUMAN | EST02238 Fetal brain, Stratagene (cat#936205) Homo sapiens cDNA clone HFBGM48 |
| 5783 | 18984 | 32287 | 1.12 | 0.0E+00 | Z26289.1 | NT | UJHF-BLO-edh-d-02-q-UJr1 NIH_MGC_37 Homo sapiens cDNA clone IMAGE:3061658 5' |
| 5804 | 18994 | 32297 | 1.85 | 0.0E+00 | AW361877.1 | EST_HUMAN | H.sapiens isoform 1 gene for L-type calcium channel, exon 14 adn 15 |
| 5804 | 18994 | 32298 | 1.85 | 0.0E+00 | AW361877.1 | EST_HUMAN | PM3-CT0263-091298-007-h05 CT0263 Homo sapiens cDNA |
| 5804 | 18994 | 32299 | 1.85 | 0.0E+00 | AW361877.1 | EST_HUMAN | PM3-CT0263-091298-007-h05 CT0263 Homo sapiens cDNA |
| 5807 | 18997 | 32302 | 0.59 | 0.0E+00 | AB035266.1 | NT | PM3-CT0263-091298-007-h05 CT0263 Homo sapiens cDNA |
| 5807 | 18997 | 32303 | 0.59 | 0.0E+00 | AB035266.1 | NT | Homo sapiens mRNA for neuroxin II, complete cds |
| 5809 | 18999 | 32306 | 1.87 | 0.0E+00 | U35261.1 | NT | Homo sapiens mRNA for neuroxin II, complete cds |
| 5840 | 19030 | 32336 | 1.02 | 0.0E+00 | AB048861.1 | NT | Homo sapiens beta-prime-adaptin (BAM22) gene, exon 13 |
| 5840 | 19030 | 32336 | 1.02 | 0.0E+00 | AB048861.1 | NT | Homo sapiens mRNA for KIAA1641 protein, partial cds |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 5888 | 19088 | 32400 | 1.49 | 0.0E+00 | AJ006345.1 | NT | Homo sapiens KVLQT1 gene |
| 5889 | 19088 | 32401 | 1.49 | 0.0E+00 | AJ006345.1 | NT | Homo sapiens KVLQT1 gene |
| 5906 | 19085 | 32410 | 1.23 | 0.0E+00 | AI207618.1 | EST_HUMAN | HA2881 Human fetal liver cDNA library Homo sapiens cDNA |
| 5928 | 19114 | 32427 | 4.63 | 0.0E+00 | 11416801 | NT | Homo sapiens protocadherin beta 2 (PCDH2), mRNA |
| 5933 | 19118 | 32430 | 1.19 | 0.0E+00 | BE791173.1 | EST_HUMAN | 601584032F1 NIH_MGC 7 Homo sapiens cDNA clone IMAGE:3938551 5' |
| 5942 | 19128 | 32441 | 1.1 | 0.0E+00 | 8989943 | NT | Homo sapiens amiloride-sensitive cation channel 1, neuronal (degenerin) (ACCN1), mRNA |
| 5943 | 19128 | 32442 | 7.24 | 0.0E+00 | BE560082.1 | EST_HUMAN | 601345141F1 NIH_MGC 8 Homo sapiens cDNA clone IMAGE:3677843 5' |
| 5944 | 19130 | 32443 | 2.46 | 0.0E+00 | 10048478 | NT | Mus musculus azoxonin (Acz), mRNA |
| 5945 | 19131 | 32444 | 3.06 | 0.0E+00 | U86981.1 | NT | Human L-type calcium channel beta-1 subunit (CACNLB1) gene, exon 13B and isoform beta-1B, complete cds |
| 5945 | 19131 | 32445 | 3.06 | 0.0E+00 | U86981.1 | NT | Human L-type calcium channel beta-1 subunit (CACNLB1) gene, exon 13B and isoform beta-1B, complete cds |
| 5985 | 19151 | 32468 | 2.98 | 0.0E+00 | BF398835.1 | EST_HUMAN | 602038272F1 NCL CGAP_Brn84 Homo sapiens cDNA clone IMAGE:4184921 5' |
| 5988 | 19154 | 32469 | 0.92 | 0.0E+00 | AF142621.1 | NT | Homo sapiens calcium channel gamma 5 subunit (CACNG5) gene, exon 4 and complete cds |
| 5989 | 19155 | 32470 | 3.07 | 0.0E+00 | BE273983.1 | EST_HUMAN | 601104452F1 NIH_MGC 14 Homo sapiens cDNA clone IMAGE:3347483 5' |
| 5979 | 19164 | 32484 | 1.12 | 0.0E+00 | BE5603096.1 | EST_HUMAN | h28341.1 x1 NCL CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3214681 3' similar to TR:Q82084 Q82084 |
| 5984 | 19168 | 32491 | 2.09 | 0.0E+00 | BF569905.1 | EST_HUMAN | PHOSPHOLIPASE C NEIGHBORING |
| 5989 | 19174 | 32495 | 0.99 | 0.0E+00 | AA454642.1 | EST_HUMAN | 268406.61 Scaree_NHMPu_S1 Homo sapiens cDNA clone IMAGE:811883 3' |
| 6021 | 19204 | 32524 | 2.15 | 0.0E+00 | AF217289.1 | NT | Homo sapiens cadherin 20 (CDH20) mRNA, complete cds |
| 6023 | 19206 | 32528 | 4.69 | 0.0E+00 | BE828144.1 | EST_HUMAN | RC6-E10027-210600-022-G10 ET10027 Homo sapiens cDNA |
| 6026 | 19211 | 32531 | 1.19 | 0.0E+00 | BE568636.1 | EST_HUMAN | 601645287F1 NIH_MGC 56 Homo sapiens cDNA clone IMAGE:3930453 5' |
| 6044 | 19227 | 32550 | 0.58 | 0.0E+00 | BE673988.1 | EST_HUMAN | 787261.1 x1 NCL CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3278540 3' similar to SW:DAX1_HUMAN |
| 6044 | 19227 | 32551 | 0.58 | 0.0E+00 | BE673988.1 | EST_HUMAN | P51843 ORPHAN NUCLEAR RECEPTOR DAX-1 [1]; |
| 6048 | 19231 | 32555 | 0.8 | 0.0E+00 | AW276760.1 | EST_HUMAN | 787261.1 x1 NCL CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3278540 3' similar to SW:DAX1_HUMAN |
| 6058 | 19240 | 32565 | 0.96 | 0.0E+00 | BF031742.1 | EST_HUMAN | P51843 ORPHAN NUCLEAR RECEPTOR DAX-1 [1]; |
| 6058 | 19240 | 32566 | 0.96 | 0.0E+00 | BF031742.1 | EST_HUMAN | xp5503.x1 NCL CGAP_Ox39 Homo sapiens cDNA clone IMAGE:2745245 3' similar to TR:P78335 P78335 |
| 6070 | 19252 | 32581 | 0.65 | 0.0E+00 | AW470846.1 | EST_HUMAN | GUANYLATE KINASE ASSOCIATED PROTEIN |
| 6082 | 19284 | 32592 | 1.09 | 0.0E+00 | BF165670.1 | EST_HUMAN | 601558080F1 NIH_MGC 58 Homo sapiens cDNA clone IMAGE:3827775 5' |
| 6082 | 19284 | 32593 | 1.09 | 0.0E+00 | BF165670.1 | EST_HUMAN | 601558080F1 NIH_MGC 58 Homo sapiens cDNA clone IMAGE:3827775 5' |
| 6082 | 19284 | 32593 | 1.09 | 0.0E+00 | BF165670.1 | EST_HUMAN | h28406.x1 NCL CGAP_Kdr12 Homo sapiens cDNA clone IMAGE:2875595 3' similar to TR:Q8ZIN3 |
| 6082 | 19284 | 32593 | 1.09 | 0.0E+00 | BF165670.1 | EST_HUMAN | Q8ZIN3 MYOSIN-RHO GAP PROTEIN, MYR 7 |
| 6082 | 19284 | 32593 | 1.09 | 0.0E+00 | BF165670.1 | EST_HUMAN | QV4-HT0894-280900-399-a10 HT0894 Homo sapiens cDNA |
| 6082 | 19284 | 32593 | 1.09 | 0.0E+00 | BF165670.1 | EST_HUMAN | QV4-HT0894-280900-399-a10 HT0894 Homo sapiens cDNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 6090 | 19271 | 32599 | 1.87 | 0.0E+00 | W33069.1 | EST_HUMAN | zc08h08.r1 Soares_peritrophic_luminal_NHHPA Homo sapiens cDNA clone IMAGE:321765 5' |
| 6090 | 19271 | 32600 | 1.87 | 0.0E+00 | W33069.1 | EST_HUMAN | zc08h08.r1 Soares_peritrophic_luminal_NHHPA Homo sapiens cDNA clone IMAGE:321765 5' |
| 6091 | 19272 | | 2.3 | 0.0E+00 | AF012018.1 | NT | Homo sapiens familial mental retardation protein 2 (FMR2) gene, exon 14 |
| 6094 | 19275 | 32604 | 3.37 | 0.0E+00 | BE280197.1 | EST_HUMAN | 601159515F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3505323 5' |
| 6100 | 19280 | 32812 | 2.43 | 0.0E+00 | BE888610.1 | EST_HUMAN | 601512630F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3914238 5' |
| 6102 | 19282 | 32815 | 0.58 | 0.0E+00 | BE388873.1 | EST_HUMAN | 601288320F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3613085 5' |
| 6117 | 19287 | 32833 | 0.85 | 0.0E+00 | AW762848.1 | EST_HUMAN | IL3-G10220-11109-028-E04 C10220 Homo sapiens cDNA |
| 6120 | 19289 | 32835 | 1.72 | 0.0E+00 | 11433071 | NT | Homo sapiens KIAA0735 gene product, synaptic vesicle protein 2B homolog (KIAA0735), mRNA |
| 6120 | 19289 | 32836 | 1.72 | 0.0E+00 | 11433071 | NT | Homo sapiens KIAA0735 gene product, synaptic vesicle protein 2B homolog (KIAA0735), mRNA |
| 6121 | 19300 | 32837 | 1.15 | 0.0E+00 | BE901608.1 | EST_HUMAN | 601677735F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3960200 5' |
| 6121 | 19300 | 32838 | 1.15 | 0.0E+00 | BE901608.1 | EST_HUMAN | 601677735F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3960200 5' |
| 6121 | 19300 | 32839 | 1.15 | 0.0E+00 | BE901608.1 | EST_HUMAN | 601677735F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3960200 5' |
| 6137 | 25819 | 32856 | 10.17 | 0.0E+00 | 9789986 | NT | Homo sapiens potassium voltage-gated channel, Shal-related subfamily, member 2 (KCND2), mRNA |
| 6140 | 19318 | 32859 | 1.28 | 0.0E+00 | AA193508.1 | EST_HUMAN | z40h01.r1 Soares_NHMPu_S1 Homo sapiens cDNA clone IMAGE:665905 5' similar to SW:YY05_HUMAN P42694 HYPOTHETICAL MYELOID CELL LINE PROTEIN 5. ; |
| 6140 | 19318 | 32860 | 1.28 | 0.0E+00 | AA193508.1 | EST_HUMAN | z40h01.r1 Soares_NHMPu_S1 Homo sapiens cDNA clone IMAGE:665905 5' similar to SW:YY05_HUMAN P42694 HYPOTHETICAL MYELOID CELL LINE PROTEIN 5. ; |
| 6163 | 19339 | 32865 | 10.44 | 0.0E+00 | U34625.1 | NT | Human T cell surface glycoprotein CD-6 mRNA, complete cds |
| 6163 | 19339 | 32866 | 10.44 | 0.0E+00 | U34625.1 | NT | Human T cell surface glycoprotein CD-6 mRNA, complete cds |
| 6203 | 19378 | 32729 | 1.06 | 0.0E+00 | BE258330.1 | EST_HUMAN | 601114823F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3355665 5' |
| 6213 | 19388 | 32737 | 1.15 | 0.0E+00 | BE158561.1 | EST_HUMAN | QVQ-HT0368-090200-098-e09 HT0368 Homo sapiens cDNA |
| 6223 | 19398 | 32747 | 0.89 | 0.0E+00 | M38107.1 | NT | Human neurofibromatosis type 1 (NF-1) mRNA, 3' end of cds |
| 6259 | 19433 | 32780 | 1.6 | 0.0E+00 | BE378007.1 | EST_HUMAN | 601236276F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3608490 5' |
| 6265 | 19439 | 32786 | 1.35 | 0.0E+00 | AU137772.1 | EST_HUMAN | AU137772 PLACET Homo sapiens cDNA clone PLACE1007201 5' |
| 6287 | 19460 | 32812 | 3.33 | 0.0E+00 | U45982.1 | NT | Human G protein-coupled receptor GPR-9-8 gene, complete cds |
| 6316 | 19488 | 32844 | 4.34 | 0.0E+00 | AA204740.1 | EST_HUMAN | zq81d03.r1 Stralagene hNT neuron (H937233) Homo sapiens cDNA clone IMAGE:648006 5' similar to TR:G854195 G854195 LEUKOCYTE SURFACE PROTEIN. ; |
| 6317 | 19489 | 32845 | 3.89 | 0.0E+00 | 11545913 | NT | Homo sapiens xylosyltransferase II (XT2), mRNA |
| 6317 | 19489 | 32846 | 3.89 | 0.0E+00 | 11545913 | NT | Homo sapiens xylosyltransferase II (XT2), mRNA |
| 6353 | 19523 | 32880 | 2.23 | 0.0E+00 | 11426307 | NT | Homo sapiens carcinoembryonic antigen-related cell adhesion molecule 8 (CEACAM8), mRNA |
| 6357 | 19527 | 32885 | 3.15 | 0.0E+00 | BE251773.1 | EST_HUMAN | 601109532F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3350822 5' |
| 6371 | 19540 | | 0.98 | 0.0E+00 | A1886048.1 | EST_HUMAN | 1811f10.x1 NC1 CGAP_P128 Homo sapiens cDNA clone IMAGE:2248939 3' similar to TR:Q14839 Q14839 MI-2 PROTEIN. ; |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6375 | 19544 | 32802 | 1.32 | 0.0E+00 | L35830.1 | NT | Human anion exchanger (AE1) gene, exons 1-20 |
| 6383 | 19552 | 32808 | 0.96 | 0.0E+00 | BE787385.1 | EST_HUMAN | 601587871F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3942328 5' |
| 6383 | 19552 | 32809 | 0.96 | 0.0E+00 | BE787385.1 | EST_HUMAN | 601587871F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3942328 5' |
| 6393 | 19562 | 32922 | 0.71 | 0.0E+00 | A1108025.1 | EST_HUMAN | q150b11.x1 NCI_CGAP_Bim25 Homo sapiens cDNA clone IMAGE:1859901 3' similar to TR:Q12838 Q12838 |
| 6393 | 19562 | 32923 | 0.71 | 0.0E+00 | A1108025.1 | EST_HUMAN | q150b11.x1 NCI_CGAP_Bim25 Homo sapiens cDNA clone IMAGE:1859901 3' similar to TR:Q12838 Q12838 |
| 6395 | 19564 | 32924 | 1.11 | 0.0E+00 | BF357123.1 | EST_HUMAN | q150b11.x1 NCI_CGAP_Bim25 Homo sapiens cDNA clone IMAGE:1859901 3' similar to TR:Q12838 Q12838 |
| 6403 | 19572 | 32934 | 1.3 | 0.0E+00 | 11435830 | NT | Human sapiens peptide transporter 3 (LOC51296), mRNA |
| 6413 | 19582 | 32943 | 0.59 | 0.0E+00 | D55649.1 | NT | Human mRNA for alpha mannosidase II isozyme, complete cds |
| 6429 | 19597 | 32963 | 1.07 | 0.0E+00 | AW178142.1 | EST_HUMAN | IL3-HT002-010899-014-A04 HT0062 Homo sapiens cDNA |
| 6450 | 19617 | 32980 | 0.6 | 0.0E+00 | BE674544.1 | EST_HUMAN | 7a02c12.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3281302 3' similar to SW:Y176_HUMAN |
| 6454 | 19621 | 32985 | 0.71 | 0.0E+00 | 7692039 | NT | Q14681 HYPOTHETICAL PROTEIN KIAA0176; |
| 6468 | 19636 | 33006 | 9.28 | 0.0E+00 | AV650020.1 | EST_HUMAN | AV650020 GLC Homo sapiens cDNA clone GLCAD09 3' |
| 6477 | 19644 | 33006 | 3.46 | 0.0E+00 | AW575598.1 | EST_HUMAN | UI-HF-BL0-acc-g-12-Q-UJ.s1 NIH_MGC_37 Homo sapiens cDNA clone IMAGE:3058761 3' |
| 6480 | 19647 | 33009 | 4.53 | 0.0E+00 | H01285.1 | EST_HUMAN | y27b03.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:149933 5' |
| 6488 | 19655 | 33016 | 0.71 | 0.0E+00 | 11428253 | NT | Homo sapiens amiloride-sensitive cation channel 1, neuronal (degenerin) (ACCN1), mRNA |
| 6492 | 19659 | 33021 | 1.97 | 0.0E+00 | X15377.1 | NT | Human gene for the light and heavy chains of myeloperoxidase |
| 6494 | 19660 | 33023 | 1.17 | 0.0E+00 | AA458375.1 | EST_HUMAN | aat14e07.r1 Soares_NihMFPu_S1 Homo sapiens cDNA clone IMAGE:913252 5' |
| 6495 | 19661 | 33024 | 1.04 | 0.0E+00 | A1612841.1 | EST_HUMAN | 1757d08.x1 NCI_CGAP_Ox35 Homo sapiens cDNA clone IMAGE:2282887 3' similar to SW:NTCS_HUMAN |
| 6501 | 19667 | 33030 | 4.27 | 0.0E+00 | BE735980.1 | EST_HUMAN | P53798 SODIUM- AND CHLORIDE-DEPENDENT CREATINE TRANSPORTER 2; |
| 6501 | 19667 | 33031 | 4.27 | 0.0E+00 | BE735980.1 | EST_HUMAN | 601305388F1 NIH_MGC_38 Homo sapiens cDNA clone IMAGE:3639816 5' |
| 6505 | 19671 | 33037 | 0.86 | 0.0E+00 | AW748596.1 | EST_HUMAN | 601305388F1 NIH_MGC_38 Homo sapiens cDNA clone IMAGE:3639816 5' |
| 6505 | 19671 | 33038 | 0.86 | 0.0E+00 | AW748596.1 | EST_HUMAN | MFO-BT0284-221199-002-f11 BT0284 Homo sapiens cDNA |
| 6507 | 19673 | 33040 | 52.21 | 0.0E+00 | AU119245.1 | EST_HUMAN | MFO-BT0284-221199-002-f11 BT0284 Homo sapiens cDNA |
| 6507 | 19673 | 33041 | 52.21 | 0.0E+00 | AU119245.1 | EST_HUMAN | AU119245 HEMBA1 Homo sapiens cDNA clone HEMBA1005360 5' |
| 6512 | 19677 | 33047 | 0.8 | 0.0E+00 | BE780453.1 | EST_HUMAN | AU119245 HEMBA1 Homo sapiens cDNA clone HEMBA1005360 5' |
| 6513 | 19678 | 33048 | 0.84 | 0.0E+00 | X92217.1 | NT | 601468712F1 NIH_MGC_87 Homo sapiens cDNA clone IMAGE:3871869 5' |
| 6527 | 19691 | 33055 | 1.71 | 0.0E+00 | A1939483.1 | EST_HUMAN | H.sapiens germine immunoglobulin heavy chain, variable region, (13-2) |
| 6541 | 19704 | 33076 | 4.08 | 0.0E+00 | BE293153.1 | EST_HUMAN | ws25c07.x1 NCI_CGAP_G08 Homo sapiens cDNA clone IMAGE:2499220 3' |
| 6541 | 19704 | 33077 | 4.08 | 0.0E+00 | BE293153.1 | EST_HUMAN | 601105344F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2887963 5' |
| 6573 | 19735 | 33114 | 1.07 | 0.0E+00 | BE687657.1 | EST_HUMAN | 601105344F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:2887963 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6609 | 19769 | 33158 | 1.81 | 0.0E+00 | AW406348.1 | EST_HUMAN | UI-HF-BL0-acc-h-02-Q-U1.r1 NIH_MGC 37 Homo sapiens cDNA clone IMAGE:3059931 5' |
| 6609 | 19769 | 33159 | 1.81 | 0.0E+00 | AW406348.1 | EST_HUMAN | UI-HF-BL0-acc-h-02-Q-U1.r1 NIH_MGC 37 Homo sapiens cDNA clone IMAGE:3059931 5' |
| 6640 | 19769 | 33188 | 0.94 | 0.0E+00 | AV719444.1 | EST_HUMAN | AV719444 GLC Homo sapiens cDNA clone G1CEHC06 5' |
| 6649 | 19808 | 33195 | 0.74 | 0.0E+00 | BE898340.1 | EST_HUMAN | 601681150F1 NIH_MGC 9 Homo sapiens cDNA clone IMAGE:3951301 5' |
| 6649 | 19808 | 33196 | 0.74 | 0.0E+00 | BE898340.1 | EST_HUMAN | 601681150F1 NIH_MGC 9 Homo sapiens cDNA clone IMAGE:3951301 5' |
| 6652 | 19811 | 33189 | 2.13 | 0.0E+00 | AF180860.1 | NT | Homo sapiens low voltage-activated T-type calcium channel alpha 1G splice variant CavT.1a (CACNA1G) mRNA, complete cds |
| 6655 | 19814 | 33202 | 0.84 | 0.0E+00 | L48546.1 | NT | Homo sapiens tuberin (TSC2) gene, exons 38, 39, 40 and 41 |
| 6657 | 19816 | 33203 | 0.89 | 0.0E+00 | 11420859 | NT | Homo sapiens transformation/transcription domain-associated protein (TRAP), mRNA |
| 6664 | 19823 | 33210 | 3.5 | 0.0E+00 | AW163840.1 | EST_HUMAN | au96h08.y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2784159 5' similar to TR-O15390 O15390 GT24. [3] TR-O43840 TR-O43206; |
| 6664 | 19823 | 33211 | 3.5 | 0.0E+00 | AW163840.1 | EST_HUMAN | au96h08.y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2784159 5' similar to TR-O15390 O15390 GT24. [3] TR-O43840 TR-O43206; |
| 6668 | 19827 | 33214 | 1.08 | 0.0E+00 | W37163.1 | EST_HUMAN | zb20e06.r1 Soares fetal lung Nbr-L19W Homo sapiens cDNA clone IMAGE:302626 5' similar to SW:ZN45 HUMAN Q02388 ZINC FINGER PROTEIN 45; |
| 6688 | 19827 | 33215 | 1.08 | 0.0E+00 | W37163.1 | EST_HUMAN | zb20e06.r1 Soares fetal lung Nbr-L19W Homo sapiens cDNA clone IMAGE:302626 5' similar to SW:ZN46 HUMAN Q02388 ZINC FINGER PROTEIN 45; |
| 6684 | 19842 | 33232 | 1.21 | 0.0E+00 | BE784853.1 | EST_HUMAN | 601588371F1 NIH_MGC 7 Homo sapiens cDNA clone IMAGE:3943504 5' |
| 6691 | 19849 | 33289 | 5.1 | 0.0E+00 | BE788879.1 | EST_HUMAN | 601587561F1 NIH_MGC 7 Homo sapiens cDNA clone IMAGE:3941847 5' |
| 6692 | 19850 | 33240 | 1.38 | 0.0E+00 | BE767955.1 | EST_HUMAN | QV1-GN0065-140800-318-h02 GN0065 Homo sapiens cDNA |
| 6692 | 19850 | 33241 | 1.38 | 0.0E+00 | BE767955.1 | EST_HUMAN | QV1-GN0065-140800-318-h02 GN0065 Homo sapiens cDNA |
| 6696 | 19854 | 33244 | 6.83 | 0.0E+00 | BE889813.1 | EST_HUMAN | 601512058F1 NIH_MGC 71 Homo sapiens cDNA clone IMAGE:3913311 5' |
| 6696 | 19854 | 33245 | 6.83 | 0.0E+00 | BE889813.1 | EST_HUMAN | 601512058F1 NIH_MGC 71 Homo sapiens cDNA clone IMAGE:3913311 5' |
| 6705 | 19863 | 33253 | 4.51 | 0.0E+00 | L24493.1 | NT | Human antigen CD27 gene, exons 1-2 |
| 6710 | 19868 | 33257 | 2.62 | 0.0E+00 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 6710 | 19868 | 33258 | 2.62 | 0.0E+00 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 6716 | 19874 | 33295 | 3.68 | 0.0E+00 | 6005983 | NT | Homo sapiens zona pellucida glycoprotein 3A (sperm receptor) (ZP3A), mRNA |
| 6720 | 19877 | 33288 | 4.12 | 0.0E+00 | AI638412.1 | EST_HUMAN | 133111.x1 NCL CGAP_G08 Homo sapiens cDNA clone IMAGE:2242413 3' similar to SW:WNT3_MOUSE |
| 6722 | 19879 | 33270 | 1.46 | 0.0E+00 | L32832.1 | NT | P17553 WNT-3 PROTO-ONCOGENE PROTEIN PRECURSOR. ; |
| 6735 | 19891 | 33283 | 0.82 | 0.0E+00 | AW505430.1 | EST_HUMAN | Homo sapiens zinc finger homeodomain protein (ATBF1-A) mRNA, complete cds |
| 6737 | 19893 | 33284 | 4.11 | 0.0E+00 | AA434584.1 | EST_HUMAN | UI-HF-BND-ame-c-01-Q-U1.r1 NIH_MGC 60 Homo sapiens cDNA clone IMAGE:3081217 6' |
| 6751 | 19907 | | 1.13 | 0.0E+00 | BF217200.1 | EST_HUMAN | zw62d03.r1 Soares fetal testis N22HF8.9w Homo sapiens cDNA clone IMAGE:773668 5' |
| 6756 | 19912 | 33307 | 1.63 | 0.0E+00 | BE826876.1 | EST_HUMAN | 601885317F1 NIH_MGC 57 Homo sapiens cDNA clone IMAGE:4103693 5' |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6789 | 19944 | 33342 | 0.76 | 0.0E+00 | 11426768 | NT | Homo sapiens solute carrier family 1 (high affinity aspartate/glutamate transporter), member 6 (SLC1A6), mRNA |
| 6789 | 19944 | 33343 | 0.76 | 0.0E+00 | 11426768 | NT | Homo sapiens solute carrier family 1 (high affinity aspartate/glutamate transporter), member 6 (SLC1A6), mRNA |
| 6790 | 19945 | 33345 | 0.59 | 0.0E+00 | AW611964.1 | EST_HUMAN | hg82e04.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2952126 3' |
| 6808 | 19982 | 33368 | 1.94 | 0.0E+00 | AU126928.1 | EST_HUMAN | AU126928 NTZRM4 Homo sapiens cDNA clone NTZRM4002430 5' |
| 6810 | 19984 | 33368 | 0.88 | 0.0E+00 | BE701434.1 | EST_HUMAN | PM2-NN0174-260700-001-H10 NN0174 Homo sapiens cDNA |
| 6810 | 19984 | 33369 | 0.58 | 0.0E+00 | BE701434.1 | EST_HUMAN | PM2-NN0174-260700-001-H10 NN0174 Homo sapiens cDNA |
| 6832 | 19985 | 33393 | 1.27 | 0.0E+00 | BE142363.1 | EST_HUMAN | CMO-HT0143-270899-082-c08 HT0143 Homo sapiens cDNA |
| 6854 | 20007 | 33416 | 2.43 | 0.0E+00 | BE006012.1 | EST_HUMAN | RCO-BN0121-280300-032-e04 BN0121 Homo sapiens cDNA |
| 6854 | 20007 | 33417 | 2.43 | 0.0E+00 | BE006012.1 | EST_HUMAN | RCO-BN0121-280300-032-e04 BN0121 Homo sapiens cDNA |
| 6876 | 20028 | 33438 | 7.76 | 0.0E+00 | BE169131.1 | EST_HUMAN | PM3-HT0520-230200-002-c08 HT0520 Homo sapiens cDNA |
| 6878 | 20030 | 33440 | 2.04 | 0.0E+00 | BF085687.1 | EST_HUMAN | IL5-GN0032-180800-145-d07 GN0032 Homo sapiens cDNA |
| 6815 | 20230 | 33663 | 3.33 | 0.0E+00 | AA190755.1 | EST_HUMAN | zp98ec03.r1 Stralagene HeLa cell s3 837218 Homo sapiens cDNA clone IMAGE:627282 5' |
| 6828 | 20241 | 33676 | 0.83 | 0.0E+00 | U39573.1 | NT | Human salivary peroxidase mRNA, complete cds |
| 6830 | 20245 | 33678 | 0.76 | 0.0E+00 | BE871987.1 | EST_HUMAN | 7a48b07.x1 NCI_CGAP_G08 Homo sapiens cDNA clone IMAGE:3222037 3' similar to TR:Q9Z285 Q9Z285 |
| 6840 | 20253 | 33689 | 6.73 | 0.0E+00 | AIB40621.1 | EST_HUMAN | TEKTIN.1 |
| 6840 | 20253 | 33690 | 6.73 | 0.0E+00 | AIB40621.1 | EST_HUMAN | IL3-ST0024-230798-001-B01 ST0024 Homo sapiens cDNA |
| 6851 | 20284 | 33703 | 2.16 | 0.0E+00 | 11435926 | NT | Homo sapiens CD6 antigen (CD6), mRNA |
| 6863 | 20181 | 33617 | 0.73 | 0.0E+00 | AL042443.1 | EST_HUMAN | DKFZP434D2021.1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZP434D2021 5' |
| 6864 | 20182 | 33618 | 11.05 | 0.0E+00 | X56163.1 | NT | H. sapiens Immunoglobulin heavy chain gene, variable region |
| 6867 | 20185 | 33621 | 0.92 | 0.0E+00 | A1168270.1 | EST_HUMAN | oo10d01.x1 Soares_NSF_F8_gw_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:1565761 3' similar to TR:Q26623 Q26623 TEKTIN C1. |
| 6872 | 20200 | 33626 | 0.85 | 0.0E+00 | BE734087.1 | EST_HUMAN | 801587370F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3842080 5' |
| 6891 | 18510 | 31502 | 1.28 | 0.0E+00 | BE666381.1 | EST_HUMAN | 601339977F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3662267 5' |
| 6898 | 18517 | 31509 | 13.63 | 0.0E+00 | BE867889.1 | EST_HUMAN | 801443687F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3847697 5' |
| 6898 | 18517 | 31510 | 13.63 | 0.0E+00 | BE867889.1 | EST_HUMAN | 801443687F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847697 5' |
| 7004 | 20140 | 33559 | 1.74 | 0.0E+00 | BE550162.1 | EST_HUMAN | 7b49f03.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3231581 3' similar to SW:GG95_HUMAN |
| 7004 | 20140 | 33559 | 1.74 | 0.0E+00 | BE550162.1 | EST_HUMAN | 7b49f03.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3231581 3' similar to SW:GG95_HUMAN |
| 7030 | 20166 | 33598 | 1.66 | 0.0E+00 | BF088376.1 | EST_HUMAN | QM1-HT0877-060800-397-g11 HT0877 Homo sapiens cDNA |
| 7036 | 20172 | 33594 | 1.4 | 0.0E+00 | AA195106.1 | EST_HUMAN | zr34g03.r1 Soares_NHMPu_S1 Homo sapiens cDNA clone IMAGE:666332 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 7044 | 20097 | | 11.81 | 0.0E+00 | 11094810 | NT | Homo sapiens catenin (cadherin-associated protein), delta 2 (neural plakophilin-related arm-repeat protein) (CTNND2), mRNA |
| 7046 | 20098 | 33515 | 1.11 | 0.0E+00 | 11431474 | NT | Homo sapiens sodium channel, nonvoltage-gated 1, beta (Liddle syndrome) (SCNN1B), mRNA |
| 7061 | 20114 | 33529 | 2.69 | 0.0E+00 | BF669903.1 | EST_HUMAN | 602188852F1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4310078 5' |
| 7068 | 20121 | 33536 | 0.66 | 0.0E+00 | 4557364 | NT | Homo sapiens Bloom syndrome (BLM), mRNA |
| 7076 | 20129 | | 2.06 | 0.0E+00 | J03089.1 | NT | Human MYCL2 gene, complete cds |
| 7083 | 20177 | 33589 | 2.66 | 0.0E+00 | AF217288.1 | NT | Homo sapiens cadherin 20 (CDH20), mRNA, complete cds |
| 7083 | 20177 | 33600 | 2.66 | 0.0E+00 | AF217288.1 | NT | Homo sapiens cadherin 20 (CDH20), mRNA, complete cds |
| 7084 | 20178 | 33601 | 1.07 | 0.0E+00 | M38113.1 | NT | Human neurofibromatosis type 1 gene, exon x8 |
| 7095 | 18522 | 31515 | 3.59 | 0.0E+00 | 11420775 | NT | Homo sapiens melanoma antigen, family B, 2 (MAGEB2), mRNA |
| 7099 | 18526 | 31518 | 0.7 | 0.0E+00 | BE258708.1 | EST_HUMAN | 601115515F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:3356330 5' |
| | | | | | | | wf21c09.x1 Soares_Diackgraefe_colon_NHUC Homo sapiens cDNA clone IMAGE:2351248 3' similar to gb:M74287 HOMEBOX PROTEIN HOXA4 (HUMAN); contains PTR5.b1 MER22 MER22 repetitive element: |
| 7111 | 18537 | 31493 | 0.62 | 0.0E+00 | AI650911.1 | EST_HUMAN | wf21c09.x1 Soares_Diackgraefe_colon_NHUC Homo sapiens cDNA clone IMAGE:2351248 3' similar to gb:M74287 HOMEBOX PROTEIN HOXA4 (HUMAN); contains PTR5.b1 MER22 MER22 repetitive element: |
| 7111 | 18537 | 31494 | 0.62 | 0.0E+00 | AI650911.1 | EST_HUMAN | AU118478 HEMBA1 Homo sapiens cDNA clone HEMBA1003879 5' |
| 7120 | 18546 | 31457 | 1.21 | 0.0E+00 | AU118478.1 | EST_HUMAN | 601148864F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3501828 5' |
| 7123 | 18549 | 31461 | 7.52 | 0.0E+00 | BE262941.1 | EST_HUMAN | H. sapiens mRNA for latent transforming growth factor-beta binding protein (LTBP-2) |
| 7124 | 18550 | 31462 | 2.72 | 0.0E+00 | Z37876.1 | NT | H. sapiens mRNA for latent transforming growth factor-beta binding protein (LTBP-2) |
| 7124 | 18550 | 31463 | 2.72 | 0.0E+00 | Z37876.1 | NT | H. sapiens mRNA for latent transforming growth factor-beta binding protein (LTBP-2) |
| 7125 | 18551 | 31464 | 3.01 | 0.0E+00 | AF257737.1 | NT | Homo sapiens ciliary dynein heavy chain 9 (DNAH9), complete cds |
| 7125 | 18551 | 31465 | 3.01 | 0.0E+00 | AF257737.1 | NT | Homo sapiens ciliary dynein heavy chain 9 (DNAH9), complete cds |
| 7132 | 18558 | 31472 | 1.26 | 0.0E+00 | AF310105.1 | NT | Homo sapiens NALP1 mRNA, complete cds |
| 7137 | 20272 | 33711 | 0.81 | 0.0E+00 | BE762770.1 | EST_HUMAN | QV3-NT0022-140600-223-f01 NT0022 Homo sapiens cDNA |
| 7142 | 20277 | 33717 | 2.56 | 0.0E+00 | BF569905.1 | EST_HUMAN | 602188852F1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4310078 5' |
| 7144 | 20279 | 33719 | 0.76 | 0.0E+00 | AJ404468.1 | NT | Homo sapiens mRNA for dynein heavy chain (DNAH9 gene) |
| 7144 | 20279 | 33720 | 0.76 | 0.0E+00 | AJ404468.1 | NT | Homo sapiens mRNA for dynein heavy chain (DNAH9 gene) |
| 7148 | 20283 | 33726 | 3.26 | 0.0E+00 | L01978.1 | NT | Human type IV sodium channel alpha polypeptide (SCN4A) gene, exon 19 |
| 7153 | 20287 | 33729 | 0.72 | 0.0E+00 | AW502362.1 | EST_HUMAN | U1-HF-BR0p-aka-d-10-0-J1.r1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:3076280 5' |
| 7153 | 20287 | 33730 | 0.72 | 0.0E+00 | AW502362.1 | EST_HUMAN | U1-HF-BR0p-aka-d-10-0-J1.r1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:3076280 5' |
| 7162 | 20295 | 33738 | 0.87 | 0.0E+00 | AL039581.1 | EST_HUMAN | DKFZp434D2211_1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434D2211 5' |
| 7162 | 20295 | 33739 | 0.87 | 0.0E+00 | AL039581.1 | EST_HUMAN | DKFZp434D2211_1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434D2211 5' |
| 7171 | 20304 | 33747 | 5.81 | 0.0E+00 | BF308996.1 | EST_HUMAN | 601888823F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4123948 5' |

Page 527 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 7177 | 20309 | 33762 | 2.13 | 0.0E+00 | U41302.1 | NT | Human chromosome 16 creatine transporter (SLC6A8) and (CDM) paralogous genes, complete cds |
| 7219 | 20384 | 33499 | 1.15 | 0.0E+00 | AL049784.1 | NT | Novel human gene mapping to chromosome 13 |
| 7225 | 20089 | 33806 | 0.84 | 0.0E+00 | AW513069.1 | EST_HUMAN | xc40602.x1 NCL CGAP_U1 Homo sapiens cDNA clone IMAGE:2708458 3' similar to TR:084895 O94895 KIAA0803 PROTEIN; |
| 7257 | 20340 | 33790 | 0.82 | 0.0E+00 | AB026893.1 | NT | Homo sapiens mRNA for vascular cadherin-2, complete cds |
| 7257 | 20340 | 33791 | 0.82 | 0.0E+00 | AB026893.1 | NT | Homo sapiens mRNA for vascular cadherin-2, complete cds |
| 7262 | 20345 | 33797 | 0.84 | 0.0E+00 | AU137738.1 | EST_HUMAN | AU137738 PLACE1 Homo sapiens cDNA clone PLACE1007120 5' |
| 7262 | 20345 | 33798 | 0.84 | 0.0E+00 | AU137738.1 | EST_HUMAN | AU137738 PLACE1 Homo sapiens cDNA clone PLACE1007120 5' |
| 7268 | 20361 | 33804 | 1.16 | 0.0E+00 | AW654806.1 | EST_HUMAN | EST366876 IMAGE reassessments, MAGC Homo sapiens cDNA |
| 7269 | 20362 | 33805 | 0.72 | 0.0E+00 | BE254103.1 | EST_HUMAN | 607113958F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:3354568 5' |
| 7283 | 20366 | 33819 | 1 | 0.0E+00 | L01973.1 | NT | Human type VI sodium channel alpha polypeptide (SCN4A) gene, exon 14 |
| 7291 | 20373 | 33829 | 1.03 | 0.0E+00 | AB007635.1 | NT | Homo sapiens mRNA for KIAA0468 protein, partial cds |
| 7291 | 20373 | 33830 | 1.03 | 0.0E+00 | AB007635.1 | NT | Homo sapiens mRNA for KIAA0468 protein, partial cds |
| 7297 | 20378 | 33837 | 1.47 | 0.0E+00 | AU133213.1 | EST_HUMAN | AU133213 NT2RP4 Homo sapiens cDNA clone NT2RP4001556 5' |
| 7313 | 20395 | 33857 | 1.06 | 0.0E+00 | 11428081 | NT | Homo sapiens membrane protein CH1 (CH1), mRNA |
| 7319 | 20401 | | 2.82 | 0.0E+00 | AU143708.1 | EST_HUMAN | AU143708 Y78AA1 Homo sapiens cDNA clone Y78AA1002365 5' |
| 7320 | 20402 | 33864 | 0.71 | 0.0E+00 | 4758839 | NT | Homo sapiens netrin 1 (NTN1), mRNA |
| 7329 | 20411 | 33872 | 1.25 | 0.0E+00 | BE891289.1 | EST_HUMAN | 601431819F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3917164 5' |
| 7329 | 20411 | 33873 | 1.25 | 0.0E+00 | BE891289.1 | EST_HUMAN | 601431819F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3917164 5' |
| 7350 | 18569 | 31436 | 2.43 | 0.0E+00 | AF137288.1 | NT | Homo sapiens keratin 12 (KRT12) gene, complete cds |
| 7350 | 18569 | 31437 | 2.43 | 0.0E+00 | AF137288.1 | NT | Homo sapiens keratin 12 (KRT12) gene, complete cds |
| 7361 | 20440 | 33901 | 0.87 | 0.0E+00 | BE747231.1 | EST_HUMAN | 601580948F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3929722 5' |
| 7361 | 20440 | 33902 | 0.87 | 0.0E+00 | BE747231.1 | EST_HUMAN | 601580948F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3929722 5' |
| 7371 | 20450 | 33913 | 4.07 | 0.0E+00 | 11436699 | NT | Homo sapiens vitamin D (1,25-dihydroxyvitamin D3) receptor (VDR), mRNA |
| 7371 | 20450 | 33914 | 4.07 | 0.0E+00 | 11436699 | NT | Homo sapiens vitamin D (1,25-dihydroxyvitamin D3) receptor (VDR), mRNA |
| 7385 | 20463 | 33927 | 0.93 | 0.0E+00 | AF227744.1 | NT | Homo sapiens voltage-dependent calcium channel alpha 1G subunit isoform aa (CACNA1G) mRNA, complete cds |
| 7406 | 20484 | 33952 | 38.37 | 0.0E+00 | A1128344.1 | EST_HUMAN | qc67a07.x1 Scores_placenta_8b59weeks_2NbpP8b9W Homo sapiens cDNA clone IMAGE:1714844 3' similar to SW:ARSD_HUMAN P51689 ARYL SULFATASE D PRECURSOR ; contains element HGR repetitive element ; |
| 7406 | 20484 | 33953 | 38.37 | 0.0E+00 | A1128344.1 | EST_HUMAN | qc67a07.x1 Scores_placenta_8b59weeks_2NbpP8b9W Homo sapiens cDNA clone IMAGE:1714844 3' similar to SW:ARSD_HUMAN P51689 ARYL SULFATASE D PRECURSOR ; contains element HGR repetitive element ; |

Page 528 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 7408 | 20488 | 33955 | 0.74 | 0.0E+00 | AF227135.1 | NT | Homo sapiens candidate taste receptor 12R9 gene, complete cds |
| 7408 | 20488 | 33956 | 0.74 | 0.0E+00 | AF227135.1 | NT | Homo sapiens candidate taste receptor 12R9 gene, complete cds |
| 7410 | 20488 | 33958 | 3.41 | 0.0E+00 | 11428392 | NT | Homo sapiens myosin, heavy polypeptide 8, skeletal muscle, perinatal (MYH8), mRNA |
| 7410 | 20488 | 33959 | 5.41 | 0.0E+00 | 11428392 | NT | Homo sapiens myosin, heavy polypeptide 8, skeletal muscle, perinatal (MYH8), mRNA |
| 7413 | 20491 | | 13.11 | 0.0E+00 | BF337375.1 | EST_HUMAN | 502035089F1 NCL_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4182839 5' |
| 7415 | 20493 | 33961 | 3.49 | 0.0E+00 | AA128453.1 | EST_HUMAN | z60708.1 Stratagene muscle 637208 Homo sapiens cDNA clone IMAGE:562601 5' similar to TR:G806562 |
| 7420 | 20497 | 33967 | 0.77 | 0.0E+00 | AL079497.1 | EST_HUMAN | DKFZp434B0228.1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434B0228 5' |
| 7420 | 20497 | 33968 | 0.77 | 0.0E+00 | AL079497.1 | EST_HUMAN | DKFZp434B0228.1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434B0228 5' |
| 7431 | 20508 | 33980 | 0.69 | 0.0E+00 | AJ270996.1 | NT | Homo sapiens partial mRNA for LTRPC5 protein (LTRPC5 gene) |
| 7461 | 20536 | 34011 | 1.13 | 0.0E+00 | BE286489.1 | EST_HUMAN | 601174576F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3529784 5' |
| 7463 | 20538 | 34012 | 0.91 | 0.0E+00 | 11427865 | NT | Homo sapiens hypothetical protein (FLJ20261), mRNA |
| 7466 | 20541 | | 1.33 | 0.0E+00 | AU118607.1 | EST_HUMAN | AU118607 HEMBA1 Homo sapiens cDNA clone HEMBA1003969 5' |
| 7467 | 20542 | 34015 | 1.71 | 0.0E+00 | AF005213.1 | NT | Homo sapiens ankyrin 1 (ANK1) mRNA, complete cds |
| 7467 | 20542 | 34016 | 1.71 | 0.0E+00 | AF005213.1 | NT | Homo sapiens ankyrin 1 (ANK1) mRNA, complete cds |
| 7479 | 20564 | 34028 | 0.83 | 0.0E+00 | AF245505.1 | NT | Homo sapiens adican mRNA, complete cds |
| 7487 | 20562 | 34031 | 6.47 | 0.0E+00 | X70172.1 | NT | H. sapiens DNA for ZNGP2 pseudogene, exon 4 |
| 7489 | 20584 | 34033 | 5.81 | 0.0E+00 | U45448.1 | NT | Human P2x1 receptor mRNA, complete cds |
| 7489 | 20584 | 34034 | 5.81 | 0.0E+00 | U45448.1 | NT | Human P2x1 receptor mRNA, complete cds |
| 7502 | 20577 | 34049 | 0.89 | 0.0E+00 | AW956303.1 | EST_HUMAN | EST368573 MAGC resequences, MAGD Homo sapiens cDNA |
| 7504 | 20579 | 34051 | 2.31 | 0.0E+00 | AW950516.1 | EST_HUMAN | EST362888 MAGC resequences, MAGA Homo sapiens cDNA |
| 7531 | 20604 | 34078 | 1.03 | 0.0E+00 | AF001543.1 | EST_HUMAN | AF001543 Human cDNA (Chandrasekharappa,S.C.) Homo sapiens cDNA clone kappa_200 |
| 7531 | 20604 | 34079 | 1.03 | 0.0E+00 | AF001543.1 | EST_HUMAN | AF001543 Human cDNA (Chandrasekharappa,S.C.) Homo sapiens cDNA clone kappa_200 |
| 7531 | 20604 | 34080 | 1.03 | 0.0E+00 | AF001543.1 | EST_HUMAN | AF001543 Human cDNA (Chandrasekharappa,S.C.) Homo sapiens cDNA clone kappa_200 |
| 7552 | 20624 | | 0.58 | 0.0E+00 | M90354.1 | NT | Human BTF3 protein homologue gene, complete cds |
| 7553 | 20626 | 34101 | 0.8 | 0.0E+00 | BE408293.1 | EST_HUMAN | 601302679F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3637434 5' |
| 7580 | 20652 | | 1.09 | 0.0E+00 | R87430.1 | EST_HUMAN | ym88h10.1 Soares adult brain N2b4HB55Y Homo sapiens cDNA clone IMAGE:166051 5' |
| 7581 | 20653 | | 1.81 | 0.0E+00 | AW239328.1 | EST_HUMAN | x539605.y1 NCL_CGAP_Lu31 Homo sapiens cDNA clone IMAGE:3637434 5' |
| 7600 | 20670 | | 1.5 | 0.0E+00 | AU117553.1 | EST_HUMAN | HNF3/FH TRANSCRIPTION FACTOR GENESIS |
| 7602 | 20672 | 34146 | 3.8 | 0.0E+00 | 11427135 | NT | AU117553 HEMBA1 Homo sapiens cDNA clone HEMBA1001661 5' |
| 7622 | 20692 | 34168 | 0.82 | 0.0E+00 | AA211663.1 | EST_HUMAN | Homo sapiens glucagon-like peptide 2 receptor (GLP2R), mRNA |
| 7629 | 20698 | 34174 | 0.63 | 0.0E+00 | BF229235.1 | EST_HUMAN | z65602.1 Stratagene muscle 937209 Homo sapiens cDNA clone IMAGE:562203 5' similar to gb:X03740 MYOSIN HEAVY CHAIN, SKELETAL MUSCLE (HUMAN); MFR0-AN0083-270900-004-07 AN0083 Homo sapiens cDNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 7634 | 20703 | 34182 | 0.87 | 0.0E+00 | AW405627.1 | EST_HUMAN | UI-HF-BLO-eps-d-07-Q-J1.1 NIH_MGC_37 Homo sapiens cDNA clone IMAGE:3057469 5' |
| 7641 | 20710 | 34189 | 0.8 | 0.0E+00 | L32832.1 | NT | Homo sapiens zinc finger homeodomain protein (ATBF1-A) mRNA, complete cds |
| 7667 | 20733 | 34209 | 0.8 | 0.0E+00 | BF306906.1 | EST_HUMAN | 601899823F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4123948 5' |
| 7667 | 20733 | 34210 | 0.9 | 0.0E+00 | BF306906.1 | EST_HUMAN | 601899823F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4123948 5' |
| 7675 | 20740 | 34220 | 1.09 | 0.0E+00 | AU118767.1 | EST_HUMAN | AU118767 HEMBA1 Homo sapiens cDNA clone HEMBA1004314 5' |
| 7733 | 20794 | 34281 | 4.41 | 0.0E+00 | A1752561.1 | EST_HUMAN | cn17d05.x1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBC_cn17d05 random |
| 7733 | 20794 | 34282 | 4.41 | 0.0E+00 | A1752561.1 | EST_HUMAN | cn17d05.x1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBC_cn17d05 random |
| 7796 | 20852 | 34344 | 0.6 | 0.0E+00 | AL046347.2 | EST_HUMAN | DKFZp434J087_t1 434 (eynarym: hies3) Homo sapiens cDNA clone DKFZp434J087 5' |
| 7813 | 20868 | 34363 | 1.79 | 0.0E+00 | AF064205.1 | NT | Homo sapiens dynactin 1 (DCTN1) gene, alternatively spliced products, exons 7 through 32 and complete cds |
| 7813 | 20868 | 34364 | 1.79 | 0.0E+00 | AF064205.1 | NT | Homo sapiens dynactin 1 (DCTN1) gene, alternatively spliced products, exons 7 through 32 and complete cds |
| 7821 | 20876 | 34375 | 1.34 | 0.0E+00 | U74315.1 | EST_HUMAN | HSU74315 Human chromosome 14 Homo sapiens cDNA clone 1-4 |
| 7835 | 20890 | 34392 | 1 | 0.0E+00 | 11417342 | NT | Homo sapiens serpin domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 5A (SEMA5A), mRNA |
| 7863 | 20917 | 34422 | 0.7 | 0.0E+00 | A1825504.1 | EST_HUMAN | wb17g05.x1 NCJ_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2306976 3' similar to TR:O76363 O76363 A18C1.; |
| 7863 | 20917 | 34423 | 0.7 | 0.0E+00 | A1825504.1 | EST_HUMAN | wb17g05.x1 NCJ_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2306976 3' similar to TR:O76363 O76363 A18C1.; |
| 7871 | 20925 | 34432 | 1.84 | 0.0E+00 | 6912735 | NT | Homo sapiens transient receptor potential channel 5 (TRPC5), mRNA |
| 7877 | 20929 | 34435 | 0.88 | 0.0E+00 | N78126.1 | EST_HUMAN | 288605.s1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:299458 3' |
| 7881 | 20933 | 34438 | 6.1 | 0.0E+00 | BF217905.1 | EST_HUMAN | 601885485F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4103728 5' |
| 7886 | 20938 | 34444 | 0.62 | 0.0E+00 | BF569862.1 | EST_HUMAN | 602188808F1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4310266 5' |
| 7891 | 20943 | 34449 | 3.52 | 0.0E+00 | AU129622.1 | EST_HUMAN | AU129622 NT2RP2 Homo sapiens cDNA clone NT2RP2005913 5' |
| 7911 | 25859 | 34469 | 0.95 | 0.0E+00 | AW069274.1 | EST_HUMAN | cr42c09.x1 Jla bone marrow stroma Homo sapiens cDNA clone HBMSC_cr42c09 3' |
| 7911 | 25855 | 34470 | 0.95 | 0.0E+00 | AW069274.1 | EST_HUMAN | cr42c09.x1 Jla bone marrow stroma Homo sapiens cDNA clone HBMSC_cr42c09 3' |
| 7915 | 20953 | 34472 | 6.87 | 0.0E+00 | 4501848 | NT | Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 3 (ABCA3), mRNA |
| 7922 | 20973 | 34479 | 0.92 | 0.0E+00 | AV758467.1 | EST_HUMAN | AV758467 BM Homo sapiens cDNA clone BMFBGG05 5' |
| 7924 | 20974 | 34480 | 5.78 | 0.0E+00 | BE739870.1 | EST_HUMAN | 601593166F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3947365 5' |
| 7924 | 20974 | 34481 | 5.78 | 0.0E+00 | BE739870.1 | EST_HUMAN | 601593166F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3947365 5' |
| 7925 | 20975 | 34482 | 0.76 | 0.0E+00 | 6912461 | NT | Homo sapiens atrophin-1 interacting protein 1; activin receptor interacting protein 1 (KIAA0705), mRNA |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 7825 | 20975 | 34483 | 0.76 | 0.0E+00 | 6912461 | NT | Homo sapiens atrophin-1 interacting protein 1; activin receptor interacting protein 1 (KIA00705), mRNA |
| 7826 | 20976 | 34484 | 1.05 | 0.0E+00 | AU120424.1 | EST_HUMAN | AU120424 HEMBB1 Homo sapiens cDNA clone HEMBB1000655 5' |
| 7826 | 20976 | 34485 | 1.05 | 0.0E+00 | AU120424.1 | EST_HUMAN | AU120424 HEMBB1 Homo sapiens cDNA clone HEMBB1000655 5' |
| 7848 | 20998 | 34508 | 12.57 | 0.0E+00 | BF590287.1 | EST_HUMAN | na22204.x1 Soares NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3263214 3' similar to contains element TAR1 repetitive element; |
| 7859 | 21009 | 34519 | 1.88 | 0.0E+00 | BE787610.1 | EST_HUMAN | 601481713F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3884258 5' |
| 7859 | 21009 | 34520 | 1.88 | 0.0E+00 | BE787610.1 | EST_HUMAN | 601481713F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3884258 5' |
| 7898 | 21048 | 34551 | 0.83 | 0.0E+00 | Y16795.1 | NT | Homo sapiens psli-HaA pseudogene |
| 7899 | 21049 | 34552 | 3.88 | 0.0E+00 | A346148.1 | EST_HUMAN | qp43f05.x1 NCI_COAP_C58 Homo sapiens cDNA clone IMAGE:1925783 3' similar to SW:EVX1_HUMAN |
| 8001 | 21051 | 34554 | 0.88 | 0.0E+00 | W52673.1 | EST_HUMAN | P49840 HOMEBOX-EVEN-SKIPPED HOMOLOG PROTEIN 1; |
| 8002 | 21052 | 34555 | 0.88 | 0.0E+00 | 11425128 | NT | zc90110.1 Pancreatic Islet Homo sapiens cDNA clone IMAGE:398443 5' |
| 8003 | 21053 | 34556 | 0.59 | 0.0E+00 | AU117333.1 | EST_HUMAN | Homo sapiens similar to ER to nucleus signalling 1 (H. sapiens) (LOC83433), mRNA |
| 8004 | 21054 | | 0.57 | 0.0E+00 | BE613963.1 | EST_HUMAN | AU117333 HEMBA1 Homo sapiens cDNA clone HEMBA1001175 5' |
| 8018 | 21069 | 34580 | 0.73 | 0.0E+00 | 6995995 | NT | 601504094F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3905733 5' |
| 8018 | 21069 | 34581 | 0.73 | 0.0E+00 | 6995995 | NT | Homo sapiens cystic fibrosis transmembrane conductance regulator, A TP-binding cassette (sub-family C, member 7) (CFTR), mRNA |
| 8037 | 21120 | 34640 | 0.49 | 0.0E+00 | AU133187.1 | EST_HUMAN | Homo sapiens cystic fibrosis transmembrane conductance regulator, A TP-binding cassette (sub-family C, member 7) (CFTR), mRNA |
| 8083 | 21165 | | 0.69 | 0.0E+00 | BF217200.1 | EST_HUMAN | AU133187 NT2RP4 Homo sapiens cDNA clone NT2RP4001507 5' |
| 8086 | 21178 | 34695 | 0.81 | 0.0E+00 | BE313013.1 | EST_HUMAN | 601885317F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4103883 5' |
| 8108 | 21190 | 34710 | 1.36 | 0.0E+00 | AA149781.1 | EST_HUMAN | 601150347F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3603050 5' |
| 8121 | 21203 | 34724 | 0.72 | 0.0E+00 | BF026628.1 | EST_HUMAN | z001c08.r1 Stratagene colon (R937/204) Homo sapiens cDNA clone IMAGE:568410 5' |
| 8135 | 21217 | 34738 | 0.55 | 0.0E+00 | AA017021.1 | EST_HUMAN | 601672310F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3856131 5' |
| 8163 | 21235 | 34756 | 2.06 | 0.0E+00 | BE736046.1 | EST_HUMAN | z033h08.r1 Soares telira N2b4HR Homo sapiens cDNA clone IMAGE:360831 5' |
| 8170 | 21252 | 34772 | 3.19 | 0.0E+00 | M34872.1 | NT | 601305699F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3639803 5' |
| 8170 | 21262 | 34773 | 3.19 | 0.0E+00 | M34872.1 | NT | Human amyloid-beta protein (APP) gene, exon 11 |
| 8200 | 21282 | 34804 | 0.56 | 0.0E+00 | AW674581.1 | EST_HUMAN | Human amyloid-beta protein (APP) gene, exon 11 |
| 8200 | 21282 | 34805 | 0.56 | 0.0E+00 | AW674581.1 | EST_HUMAN | 6034d02.y1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2865123 5' similar to TR:O64852 O64852 F17K2.26 PROTEIN.; |
| 8207 | 21289 | 34811 | 2.07 | 0.0E+00 | AA397551.1 | EST_HUMAN | 6034d02.y1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2865123 5' similar to TR:O64852 O64852 F17K2.26 PROTEIN.; |
| | | | | | | | z081b04.r1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:728719 5' similar to TR:G300482 G300482 POL=REVERSE TRANSCRIPTASE HOMOLOG (RETROVIRAL ELEMENT).; |

Page 531 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8209 | 21291 | 34812 | 0.85 | 0.0E+00 | AW387131.1 | EST_HUMAN | MR0-ST0031-081099-003-af11 ST0031 Homo sapiens cDNA |
| 8212 | 21294 | | 0.84 | 0.0E+00 | AB020691.1 | NT | Homo sapiens mRNA for KIAA0884 protein, partial cds |
| 8213 | 21295 | 34814 | 0.15 | 0.0E+00 | AU142402.1 | EST_HUMAN | AU142402 Y70AA1 Homo sapiens cDNA clone Y70AA1000277 5' |
| 8216 | 21298 | 34818 | 0.88 | 0.0E+00 | BE388421.1 | EST_HUMAN | 601285550F1 NIH_MGC 44 Homo sapiens cDNA clone IMAGE:3607237 5' |
| 8216 | 21298 | 34819 | 0.88 | 0.0E+00 | BE388421.1 | EST_HUMAN | 601285550F1 NIH_MGC 44 Homo sapiens cDNA clone IMAGE:3607237 5' |
| 8231 | 21313 | 34833 | 0.59 | 0.0E+00 | 7687278 | NT | Homo sapiens killer cell immunoglobulin-like receptor, two domains, short cytoplasmic tail, 1 (KIR2DS1), mRNA |
| 8233 | 21315 | 34835 | 0.84 | 0.0E+00 | W95278.1 | EST_HUMAN | z606d01.r1 Soares fetal heart_NbHH18W Homo sapiens cDNA clone IMAGE:358081 5' |
| 8233 | 21315 | 34836 | 0.84 | 0.0E+00 | W95278.1 | EST_HUMAN | z606d01.r1 Soares fetal heart_NbHH18W Homo sapiens cDNA clone IMAGE:358081 5' |
| 8235 | 21317 | | 4.11 | 0.0E+00 | BF673096.1 | EST_HUMAN | 602153000F1 NIH_MGC 81 Homo sapiens cDNA clone IMAGE:4294128 5' |
| 8239 | 21321 | | 0.83 | 0.0E+00 | AU134114.1 | EST_HUMAN | AU134114 OVARC1 Homo sapiens cDNA clone OVARC1001286 5' |
| 8253 | 21335 | 34853 | 0.95 | 0.0E+00 | BF625534.1 | EST_HUMAN | 602069832F1 NCI_CGAP_Brm64 Homo sapiens cDNA clone IMAGE:4212727 5' |
| 8253 | 21335 | 34854 | 0.95 | 0.0E+00 | BF625534.1 | EST_HUMAN | 602069832F1 NCI_CGAP_Brm64 Homo sapiens cDNA clone IMAGE:4212727 5' |
| 8285 | 21367 | 34886 | 1.35 | 0.0E+00 | AL120124.1 | EST_HUMAN | DKFZp761P092.1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761P092 5' |
| 8285 | 21367 | 34887 | 1.35 | 0.0E+00 | AL120124.1 | EST_HUMAN | DKFZp761P092.1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761P092 5' |
| 8328 | 21410 | | 1.16 | 0.0E+00 | BE877693.1 | EST_HUMAN | 601485254F1 NIH_MGC 69 Homo sapiens cDNA clone IMAGE:3887773 5' |
| 8351 | 21432 | 34956 | 1.27 | 0.0E+00 | AW500549.1 | EST_HUMAN | UI-HF-BND-af4-01-0-JL1 NIH_MGC 50 Homo sapiens cDNA clone IMAGE:3077486 5' |
| 8359 | 21440 | 34962 | 14.12 | 0.0E+00 | AW157233.1 | EST_HUMAN | au03b08.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2783789 3' similar to TR:O60463 TYPE-2 PHOSPHATIDIC ACID PHOSPHOHYDROLASE. [1]; |
| 8376 | 21457 | 34981 | 0.88 | 0.0E+00 | AW072395.1 | EST_HUMAN | z607d12.x1 Soares NFL_I_GBC_S1 Homo sapiens cDNA clone IMAGE:2587639 3' similar to contains element ORF repetitive element: |
| 8394 | 21475 | 35002 | 1.11 | 0.0E+00 | 11421722 | NT | Homo sapiens centrosomal protein 2 (CEP2), mRNA |
| 8397 | 21478 | 35005 | 0.57 | 0.0E+00 | W01618.1 | EST_HUMAN | z636d05.r1 Soares fetal liver spleen TNFSL Homo sapiens cDNA clone IMAGE:294633 5' |
| 8399 | 21480 | 35007 | 1.3 | 0.0E+00 | BE745597.1 | EST_HUMAN | 601578195F1 NIH_MGC 9 Homo sapiens cDNA clone IMAGE:3928998 5' |
| 8399 | 21480 | 35008 | 1.3 | 0.0E+00 | BE745597.1 | EST_HUMAN | 601578195F1 NIH_MGC 9 Homo sapiens cDNA clone IMAGE:3928998 5' |
| 8411 | 21492 | 35022 | 1.13 | 0.0E+00 | AJ271735.1 | NT | Homo sapiens Xq pseudautosomal region; segment 1/2 |
| 8431 | 21512 | 35043 | 0.46 | 0.0E+00 | D45032.1 | NT | Human DNA for carotidaplasmin, exon 5 |
| 8450 | 21531 | 35060 | 0.53 | 0.0E+00 | A1367350.1 | EST_HUMAN | q95c12.x1 NCI_CGAP_Lu2 Homo sapiens cDNA clone IMAGE:1089334 3' similar to TR:Q14673 Q14673 KIAA0164 PROTEIN. ; |
| 8462 | 21543 | 35073 | 2.23 | 0.0E+00 | BE674157.1 | EST_HUMAN | 7d76ad4.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3278862 3' similar to TR:O65763 O65763 STAUFEN PROTEIN. ; |
| 8464 | 21545 | 35075 | 1.98 | 0.0E+00 | A1895871.1 | EST_HUMAN | w60b10.x1 NCI_CGAP_Brm28 Homo sapiens cDNA clone IMAGE:2429273 3' similar to SW:COG1_HUMAN P60281 MATRIX METALLOPROTEINASE-14 PRECURSOR ; |
| 8477 | 21558 | 35091 | 1.47 | 0.0E+00 | BE563650.1 | EST_HUMAN | 601334700F1 NIH_MGC 39 Homo sapiens cDNA clone IMAGE:3688655 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8477 | 21568 | 35092 | 1.47 | 0.0E+00 | BE563650.1 | EST_HUMAN | 601334790F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3688655 5' |
| 8485 | 21568 | 35102 | 1.72 | 0.0E+00 | 11427235 | NT | Homo sapiens Chediak-Higashi syndrome 1 (CHS1), mRNA |
| 8485 | 21568 | 35103 | 1.72 | 0.0E+00 | 11427235 | NT | Homo sapiens Chediak-Higashi syndrome 1 (CHS1), mRNA |
| 8487 | 21568 | 35106 | 0.84 | 0.0E+00 | AA403192.1 | EST_HUMAN | 2x65102.1 Soares, total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:768618 5' similar to |
| 8487 | 21568 | 35106 | 0.84 | 0.0E+00 | AA403192.1 | EST_HUMAN | 2x65102.1 Soares, total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:768618 5' similar to |
| 8528 | 21609 | | 3.61 | 0.0E+00 | AA398511.1 | EST_HUMAN | 2173a08.a1 Soares, testis_NHT Homo sapiens cDNA clone IMAGE:727658 3' similar to gb:S86655 |
| 8537 | 21618 | 35165 | 0.5 | 0.0E+00 | BE837593.1 | EST_HUMAN | PROHIBITIN (HUMAN); |
| 8538 | 21619 | 35166 | 1.34 | 0.0E+00 | AW364874.1 | EST_HUMAN | RC2-FN0094-120600-013-h07 FN0094 Homo sapiens cDNA |
| 8538 | 21619 | 35167 | 1.34 | 0.0E+00 | AW364874.1 | EST_HUMAN | QV3-DT0045-221299-048-c07 DT0045 Homo sapiens cDNA |
| 8557 | 21638 | 35176 | 1.24 | 0.0E+00 | BE812586.1 | EST_HUMAN | QV3-DT0046-221299-048-c07 DT0045 Homo sapiens cDNA |
| 8557 | 21638 | 35177 | 1.24 | 0.0E+00 | BE812586.1 | EST_HUMAN | 601452412F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3866179 5' |
| 8572 | 21653 | 35194 | 1.16 | 0.0E+00 | AL163209.2 | NT | 601452412F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3866179 5' |
| 8572 | 21653 | 35195 | 1.16 | 0.0E+00 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 8581 | 21662 | 35202 | 0.93 | 0.0E+00 | A1894477.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C009 |
| 8588 | 21669 | 35208 | 0.71 | 0.0E+00 | AA502294.1 | EST_HUMAN | Wm33a11 x1 NCI CGAP_U14 Homo sapiens cDNA clone IMAGE:2437724 3' similar to TR:O76487 O76457 |
| 8593 | 21674 | | 0.69 | 0.0E+00 | 11416799 | NT | CYTOSOLIC PHOSPHOLIPASE A2-GAMMA, ; |
| 8601 | 21682 | 35220 | 0.52 | 0.0E+00 | A1580780.1 | EST_HUMAN | ne25d10.s1 NCI CGAP_C03 Homo sapiens cDNA clone IMAGE:882269 3' similar to TR:G1139434 |
| 8604 | 21686 | | 2.08 | 0.0E+00 | BE890787.1 | EST_HUMAN | G1136434 KIAA0187 PROTEIN, ; |
| 8630 | 21710 | 35246 | 0.81 | 0.0E+00 | AW245765.1 | EST_HUMAN | Homo sapiens protocadherin beta 3 (PCDH3), mRNA |
| 8630 | 21710 | 35247 | 0.81 | 0.0E+00 | AW245765.1 | EST_HUMAN | 15d4f11.x1 Soares, pregnant_uterus_Nb1HFU Homo sapiens cDNA clone IMAGE:2043117 3' |
| 8631 | 21711 | 35248 | 2.13 | 0.0E+00 | 4758695 | NT | 601431238F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3916669 5' |
| 8631 | 21711 | 35249 | 2.13 | 0.0E+00 | 4758695 | NT | 2822701.5prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2822701 5' |
| 8635 | 21715 | 35252 | 0.61 | 0.0E+00 | U88084.1 | NT | 2822701.5prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2822701 5' |
| 8635 | 21715 | 35253 | 0.61 | 0.0E+00 | U88084.1 | NT | Homo sapiens mitogen-activated protein kinase kinase 13 (MAP3K13), mRNA |
| 8697 | 21777 | 35309 | 0.48 | 0.0E+00 | U84744.1 | NT | Homo sapiens mitogen-activated protein kinase kinase 13 (MAP3K13), mRNA |
| 8704 | 21784 | 35317 | 0.7 | 0.0E+00 | AJ261760.1 | NT | Homo sapiens mitogen-activated protein kinase kinase 13 (MAP3K13), mRNA |
| 8709 | 21789 | 35323 | 2.81 | 0.0E+00 | X98922.1 | NT | Homo sapiens mitogen-activated protein kinase kinase 13 (MAP3K13), mRNA |
| 8709 | 21789 | 35324 | 2.81 | 0.0E+00 | X98922.1 | NT | Homo sapiens mitogen-activated protein kinase kinase 13 (MAP3K13), mRNA |
| 8709 | 21789 | 35325 | 2.81 | 0.0E+00 | X98922.1 | NT | Homo sapiens mitogen-activated protein kinase kinase 13 (MAP3K13), mRNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 8723 | 21803 | 35339 | 0.78 | 0.0E+00 | U82978.1 | NT | Human Immunoglobulin-like transcript-3 mRNA, complete cds |
| 8765 | 21844 | 35385 | 0.81 | 0.0E+00 | AF022655.1 | NT | Homo sapiens cep250 centrosome associated protein mRNA, complete cds |
| 8765 | 21844 | 35388 | 0.81 | 0.0E+00 | AF022655.1 | NT | Homo sapiens cep250 centrosome associated protein mRNA, complete cds |
| 8768 | 21847 | 35388 | 0.87 | 0.0E+00 | AU131671.1 | EST_HUMAN | AU131671 NT2RP3 Homo sapiens cDNA clone NT2RP3003010 5' |
| 8784 | 21863 | 35406 | 0.84 | 0.0E+00 | 11428572 | NT | Homo sapiens immunoglobulin superfamily, member 2 (IGSF2), mRNA |
| 8788 | 21867 | | 1.35 | 0.0E+00 | AW513513.1 | EST_HUMAN | xc46601.x1 NCI_CGAP_U1 Homo sapiens cDNA clone IMAGE:2707032 3' similar to gb:M14123_cds4 |
| 8780 | 21869 | | 0.54 | 0.0E+00 | BE783232.1 | EST_HUMAN | RETROVIRUS-RELATED POLYPROTEIN (HUMAN); |
| 8791 | 21870 | 35409 | 1.82 | 0.0E+00 | D52650.1 | EST_HUMAN | 601472168F1 NIH_MGC 67 Homo sapiens cDNA clone IMAGE:3874812 5' |
| 8823 | 21902 | 35442 | 4.15 | 0.0E+00 | BE378465.1 | EST_HUMAN | HUM084C02B Clontech human fetal brain polyA+ mRNA (#6535) Homo sapiens cDNA clone GEN-084C02 |
| 8829 | 21908 | 35446 | 2.16 | 0.0E+00 | AA410546.1 | EST_HUMAN | 5' |
| 8831 | 21910 | | 1.35 | 0.0E+00 | BF313948.1 | EST_HUMAN | 601236488F1 NIH_MGC 44 Homo sapiens cDNA clone IMAGE:3608709 5' |
| 8838 | 21917 | 35455 | 0.54 | 0.0E+00 | 11424387 | NT | z32604.1 Scores ovary tumor NBHOT Homo sapiens cDNA clone IMAGE:724082 5' |
| 8843 | 21922 | 35460 | 1.41 | 0.0E+00 | AW139873.1 | EST_HUMAN | 601000571F1 NIH_MGC 19 Homo sapiens cDNA clone IMAGE:4129744 5' |
| 8843 | 21922 | 35461 | 1.41 | 0.0E+00 | AW139873.1 | EST_HUMAN | Homo sapiens leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 3 |
| 8878 | 21958 | 35483 | 2.16 | 0.0E+00 | BE280272.1 | EST_HUMAN | (LILRB3), mRNA |
| 8884 | 21963 | 35487 | 2.91 | 0.0E+00 | BF700165.1 | EST_HUMAN | UI-H-B11-adr-e-12-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2717687 3' |
| 8884 | 21963 | 35488 | 2.91 | 0.0E+00 | BF700165.1 | EST_HUMAN | UI-H-B11-adr-e-12-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2717687 3' |
| 8894 | 21963 | 35499 | 2.91 | 0.0E+00 | BF700165.1 | EST_HUMAN | 601150031F1 NIH_MGC 19 Homo sapiens cDNA clone IMAGE:3502838 5' |
| 8923 | 22002 | 35541 | 0.84 | 0.0E+00 | AL440770.1 | EST_HUMAN | 602127684F1 NIH_MGC 58 Homo sapiens cDNA clone IMAGE:4284542 5' |
| 8930 | 22009 | 35547 | 3.69 | 0.0E+00 | AA982527.1 | EST_HUMAN | 602127684F1 NIH_MGC 58 Homo sapiens cDNA clone IMAGE:4284542 5' |
| 8938 | 22015 | 35555 | 3.41 | 0.0E+00 | 10947037 | NT | 602127684F1 NIH_MGC 58 Homo sapiens cDNA clone IMAGE:4284542 5' |
| 8938 | 22015 | 35556 | 3.41 | 0.0E+00 | 10947037 | NT | AL449770 Homo sapiens fetal brain (Stavrides GS) Homo sapiens cDNA |
| 8961 | 22040 | 35583 | 1.65 | 0.0E+00 | Y11107.3 | NT | 608002.s1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1602194 3' similar to gb:M36072 60S |
| 8963 | 22042 | 35585 | 1.09 | 0.0E+00 | BE278917.1 | EST_HUMAN | RIBOSOMAL PROTEIN L7A (HUMAN); |
| 8973 | 22052 | | 2.86 | 0.0E+00 | AV716377.1 | EST_HUMAN | Homo sapiens ankryrin 1, erythrocytic (ANK1), transcript variant 1, mRNA |
| 8980 | 22059 | 35600 | 3.12 | 0.0E+00 | AW337277.1 | EST_HUMAN | Homo sapiens ankryrin 1, erythrocytic (ANK1), transcript variant 1, mRNA |
| 8986 | 22065 | 35605 | 1.59 | 0.0E+00 | AU124051.1 | EST_HUMAN | Homo sapiens ankryrin 1, erythrocytic (ANK1), transcript variant 1, mRNA |
| 8986 | 22065 | 35605 | 1.59 | 0.0E+00 | AU124051.1 | EST_HUMAN | Homo sapiens ITGB4 gene for Integrin beta 4 subunit, exon 3-41 |
| 8986 | 22142 | 35687 | 0.98 | 0.0E+00 | AU140704.1 | EST_HUMAN | Homo sapiens ITGB4 gene for Integrin beta 4 subunit, exon 3-41 |
| 8973 | 22152 | 35698 | 0.64 | 0.0E+00 | AB007923.1 | NT | 601156330F1 NIH_MGC 21 Homo sapiens cDNA clone IMAGE:3139734 5' |
| | | | | | | | AV718377 FHTB Homo sapiens cDNA clone FHTBAAF11 5' |
| | | | | | | | xcv73e07.x1 NCI_CGAP_Pent1 Homo sapiens cDNA clone IMAGE:2833644 3' similar to gb:X63567 |
| | | | | | | | INTEGRIN BETA-4 SUBUNIT PRECURSOR (HUMAN); |
| | | | | | | | AU124051 NT2RM2 Homo sapiens cDNA clone NT2RM2001575 5' |
| | | | | | | | AU140704 PLACE4 Homo sapiens cDNA clone PLACE4000089 5' |
| | | | | | | | Homo sapiens mRNA for KIAA0454 protein, partial cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|-----------------------------|-------------------------------|--|
| 8078 | 22157 | 35700 | 0.68 | 0.0E+00 | R17132.1 | EST_HUMAN | yg0909.r1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:31874 5' |
| 8078 | 22157 | 35701 | 0.68 | 0.0E+00 | R17132.1 | EST_HUMAN | yg0909.r1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:31874 5' |
| 8082 | 22161 | 35703 | 4.78 | 0.0E+00 | AW592233.1 | EST_HUMAN | h48a09.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2935098 3' |
| 8082 | 22161 | 35704 | 4.78 | 0.0E+00 | AW592233.1 | EST_HUMAN | h48a09.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2935098 3' |
| 8129 | 22208 | 35761 | 0.83 | 0.0E+00 | AV714764.1 | EST_HUMAN | AV714764 DCB8 Homo sapiens cDNA clone DCBAUA06 5' |
| 8145 | 22224 | 35766 | 3.17 | 0.0E+00 | AL040428.1 | EST_HUMAN | DKFZp434C1814_s1 434 (synonym: hias3) Homo sapiens cDNA clone DKFZp434C1814 3' |
| 8145 | 22224 | 35767 | 3.17 | 0.0E+00 | AL040428.1 | EST_HUMAN | DKFZp434C1814_s1 434 (synonym: hias3) Homo sapiens cDNA clone DKFZp434C1814 3' |
| | | | | | | | Homo sapiens killer inhibitory receptor 2-2-1 (KIR221) and killer inhibitory receptor 2-2-2 (KIR222) genes, partial cds |
| 8161 | 22229 | 35773 | 1.32 | 0.0E+00 | AF133601.1 | NT | Homo sapiens mRNA for KIAA1512 protein, partial cds |
| 8163 | 22231 | 35776 | 2.12 | 0.0E+00 | AB040945.1 | NT | Homo sapiens mRNA for KIAA1512 protein, partial cds |
| | | | | | | | 7K28003.x1 NCL CGAP_Ov18 Homo sapiens cDNA clone IMAGE:3476692 3' similar to TR:O36448 O36448 S GAG: |
| 8181 | 22239 | | 0.81 | 0.0E+00 | BF058289.1 | EST_HUMAN | Homo sapiens tumor protein p73 (TP73), mRNA |
| 8181 | 22239 | 35808 | 2.79 | 0.0E+00 | 11422867 | NT | Homo sapiens tumor protein p73 (TP73), mRNA |
| 8201 | 22279 | 35818 | 1.59 | 0.0E+00 | K01241.1 | NT | Human Ig rearranged H-chain epsilon-3 pseudogene, constant region |
| 8209 | 22287 | 35828 | 5.28 | 0.0E+00 | AB020630.1 | NT | Homo sapiens mRNA for KIAA0823 protein, partial cds |
| 8209 | 22287 | 35829 | 5.28 | 0.0E+00 | AB020630.1 | NT | Homo sapiens mRNA for KIAA0823 protein, partial cds |
| 8214 | 22292 | 35835 | 1.84 | 0.0E+00 | AV660739.1 | EST_HUMAN | AV660739 GLC Homo sapiens cDNA clone GLCGK12 3' |
| 8220 | 22298 | 35841 | 3.41 | 0.0E+00 | 7706638 | NT | Homo sapiens polycystin-L (PKDL), mRNA |
| 8226 | 22303 | 35849 | 0.8 | 0.0E+00 | BE793326.1 | EST_HUMAN | 801588304F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3942553 5' |
| 8248 | 22323 | 35867 | 4.22 | 0.0E+00 | BE315402.1 | EST_HUMAN | 801141119F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3140740 5' |
| 8246 | 22323 | 35868 | 4.22 | 0.0E+00 | BE315402.1 | EST_HUMAN | 801141119F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3140740 5' |
| 8258 | 22333 | 35883 | 0.6 | 0.0E+00 | BE612721.1 | EST_HUMAN | 801452582F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3889100 5' |
| 8258 | 22333 | 35884 | 0.6 | 0.0E+00 | BE612721.1 | EST_HUMAN | 801452582F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3889100 5' |
| 8259 | 22336 | | 0.54 | 0.0E+00 | M89986.1 | NT | Human polymorphic loci in Xq28 |
| 8261 | 22338 | 35888 | 1.85 | 0.0E+00 | X14766.1 | NT | Human mRNA for GABA-A receptor, alpha 1 subunit |
| 8279 | 22355 | 35905 | 0.53 | 0.0E+00 | AU127096.1 | EST_HUMAN | AU127096 NT2RP2 Homo sapiens cDNA clone NT2RP2000579 5' |
| 8283 | 22359 | 35909 | 0.83 | 0.0E+00 | A1061395.1 | EST_HUMAN | an28604.x1 Gessler Wilms tumor Homo sapiens cDNA clone IMAGE:1700084 3' |
| | | | | | | | wq34e12.x1 NCL CGAP_G06 Homo sapiens cDNA clone IMAGE:2473160 3' similar to SW:MG83_HUMAN O15480 MELANOMA-ASSOCIATED ANTIGEN B3; |
| 8288 | 22364 | 35913 | 1.96 | 0.0E+00 | A1954607.1 | EST_HUMAN | Homo sapiens probocadherin alpha 8 (PCDH8), mRNA |
| 8283 | 22368 | 35919 | 5.59 | 0.0E+00 | 92356595 | NT | EST370381 MAGE resequences, MAGE Homo sapiens cDNA |
| 8303 | 22379 | 35930 | 2.73 | 0.0E+00 | AW998311.1 | EST_HUMAN | Human endogenous retrovirus, complete genome |
| 8313 | 22389 | 35940 | 1.32 | 0.0E+00 | 9835487 | NT | AU142662 Y78AA1 Homo sapiens cDNA clone Y78AA1000878 5' |
| 8328 | 22404 | 35956 | 0.84 | 0.0E+00 | AU142662.1 | EST_HUMAN | AU142662 Y78AA1 Homo sapiens cDNA clone Y78AA1000878 5' |
| 8344 | 22420 | 35974 | 1.04 | 0.0E+00 | 11436995 | NT | Homo sapiens MAP-kinase activating death domain (MADD), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 9345 | 22421 | | 0.76 | 0.0E+00 | BE410768.1 | EST_HUMAN | 601301876F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3636163 5' |
| 9359 | 22434 | 35983 | 1.32 | 0.0E+00 | BF002024.1 | EST_HUMAN | 7g97m12.x1 NCI_CGAP_Cot16 Homo sapiens cDNA clone IMAGE:3314471 3' similar to TR:Q8UH62 |
| 9373 | 22448 | 36009 | 1.62 | 0.0E+00 | AB011150.1 | NT | Q8UH62 HYPOTHETICAL 42.6 KD PROTEIN. ; |
| 9374 | 22449 | 36010 | 3.42 | 0.0E+00 | BE794823.1 | EST_HUMAN | Homo sapiens mRNA for KIAA0578 protein, partial cds |
| 9376 | 22453 | 36016 | 0.47 | 0.0E+00 | BE810292.1 | EST_HUMAN | 601589284F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943463 5' |
| 9378 | 22453 | 36016 | 0.47 | 0.0E+00 | BE810292.1 | EST_HUMAN | RC3-P10151-280600-011-c05 P10151 Homo sapiens cDNA |
| 9381 | 22456 | 36019 | 0.97 | 0.0E+00 | AU136228.1 | EST_HUMAN | RC3-P10151-280600-011-c05 P10151 Homo sapiens cDNA |
| 9386 | 22461 | 36024 | 1.19 | 0.0E+00 | BE883843.1 | EST_HUMAN | AU136229 PLACE1 Homo sapiens cDNA clone IMAGE:1003804 5' |
| 9386 | 22461 | 36025 | 1.19 | 0.0E+00 | BE883843.1 | EST_HUMAN | AU1510247F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3911888 5' |
| 9403 | 22477 | 36040 | 0.57 | 0.0E+00 | AB011166.1 | NT | 601510247F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3911888 5' |
| 9407 | 22481 | 36044 | 1.43 | 0.0E+00 | AA344601.1 | EST_HUMAN | Homo sapiens mRNA for KIAA0594 protein, partial cds |
| 9407 | 22481 | 36046 | 1.43 | 0.0E+00 | AA344601.1 | EST_HUMAN | EST50505 Gal bladder 1 Homo sapiens cDNA 5' end |
| 9484 | 22521 | 36083 | 0.96 | 0.0E+00 | AW673469.1 | EST_HUMAN | EST50505 Gal bladder 1 Homo sapiens cDNA 5' end |
| 9484 | 22521 | 36084 | 0.96 | 0.0E+00 | AW673469.1 | EST_HUMAN | ba54408.y3 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2900387 5' similar to TR:O60275 O60275 |
| 9498 | 22554 | 36116 | 0.99 | 0.0E+00 | BE207063.1 | EST_HUMAN | KIAA0522 PROTEIN ; |
| 9498 | 22554 | 36117 | 0.99 | 0.0E+00 | BE207063.1 | EST_HUMAN | ba54408.y3 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823873 5' similar to TR:O60275 O60275 |
| 9509 | 22775 | 36346 | 1.05 | 0.0E+00 | BF348013.1 | EST_HUMAN | ba0605.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823873 5' similar to TR:O60275 O60275 |
| 9545 | 22810 | 36178 | 3.1 | 0.0E+00 | BE12516.1 | EST_HUMAN | Bcl-xL mRNA, complete cds (MOUSE); |
| 9577 | 22719 | 36287 | 0.49 | 0.0E+00 | BF034377.1 | EST_HUMAN | Bcl-xL mRNA, complete cds (MOUSE); |
| 9577 | 22719 | 36288 | 0.49 | 0.0E+00 | BF034377.1 | EST_HUMAN | ba0905.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:4188300 5' |
| 9583 | 22725 | 36295 | 0.58 | 0.0E+00 | AB06351.1 | EST_HUMAN | 602023150F1 NCI_CGAP_Bim67 Homo sapiens cDNA clone IMAGE:4188300 5' |
| 9588 | 22728 | 36297 | 0.77 | 0.0E+00 | 5803069 | NT | QV2-HT0688-260700-282-508 HT0688 Homo sapiens cDNA |
| 9588 | 22728 | 36298 | 0.77 | 0.0E+00 | 5803069 | NT | 601455116F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3859035 5' |
| 9596 | 22651 | 36223 | 0.85 | 0.0E+00 | AL042278.1 | EST_HUMAN | 601455116F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3859035 5' |
| 9631 | 22698 | 36257 | 1.3 | 0.0E+00 | AI088043.1 | EST_HUMAN | RC-BT108-040389-032 BT108 Homo sapiens cDNA |
| 9638 | 21081 | 34592 | 0.67 | 0.0E+00 | BF308682.1 | EST_HUMAN | Homo sapiens leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 5 (LILRB5), mRNA |
| | | | | | | | Homo sapiens leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 5 (LILRB5), mRNA |
| | | | | | | | DKFZp434L0120.1 434 (synonym: hhes) Homo sapiens cDNA clone DKFZp434L0120 5' |
| | | | | | | | aw60h01.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:1061249 3' similar to TR:Q14877 Q14877 KIAA0171 PROTEIN. ; |
| | | | | | | | 601892245F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4138066 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|-----------------------------|-------------------------------|---|
| 9640 | 21083 | 34595 | 2.32 | 0.0E+00 | 11560151 | NT | Homo sapiens hypothetical C2H2 zinc finger protein FLJ22504 (FLJ22504), mRNA |
| 9640 | 21083 | 34596 | 2.32 | 0.0E+00 | 11560151 | NT | Homo sapiens hypothetical C2H2 zinc finger protein FLJ22504 (FLJ22504), mRNA |
| 9642 | 21085 | 34599 | 6.52 | 0.0E+00 | AI280909.1 | EST_HUMAN | qm09a06.x1 NCL CGAP_Lu6 Homo sapiens cDNA clone IMAGE:1881288 3' similar to SW:RL2B_HUMAN |
| 9642 | 21085 | 34600 | 6.52 | 0.0E+00 | AI280909.1 | EST_HUMAN | qm09a06.x1 NCL CGAP_Lu6 Homo sapiens cDNA clone IMAGE:1881288 3' similar to SW:RL2B_HUMAN |
| 9643 | 21086 | 34601 | 2.16 | 0.0E+00 | AW053838.1 | EST_HUMAN | EST366028 IMAGE sequences, MAGC Homo sapiens cDNA |
| 9670 | 22632 | 36201 | 3.95 | 0.0E+00 | AF153486.1 | NT | Homo sapiens polydysplastic kidney disease 2-like protein (PKD2L) gene, exon 8 |
| 9673 | 22635 | 36206 | 0.69 | 0.0E+00 | BE885128.1 | EST_HUMAN | 601510882F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3912165 5' |
| 9673 | 22635 | 36206 | 0.69 | 0.0E+00 | BE885128.1 | EST_HUMAN | 601510882F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3912165 5' |
| 9683 | 22732 | 36305 | 5.87 | 0.0E+00 | BE258829.1 | EST_HUMAN | 601106942F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3350722 5' |
| 9686 | 22735 | 36305 | 1.44 | 0.0E+00 | BE781392.1 | EST_HUMAN | 601466828F1 NIH_MGC_87 Homo sapiens cDNA clone IMAGE:3870007 5' |
| 9686 | 22735 | 36306 | 1.44 | 0.0E+00 | BE781392.1 | EST_HUMAN | 601466828F1 NIH_MGC_87 Homo sapiens cDNA clone IMAGE:3870007 5' |
| 9688 | 22737 | 36307 | 5.48 | 0.0E+00 | AW163779.1 | EST_HUMAN | au88c04.y1 Schmeider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2783142 5' similar to gb:M96072 |
| 9697 | 22746 | 36316 | 0.68 | 0.0E+00 | D87675.1 | NT | 60S RIBOSOMAL PROTEIN L7A (HUMAN); |
| 9709 | 22758 | 36329 | 3.41 | 0.0E+00 | BE263191.1 | EST_HUMAN | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 9727 | 22762 | 36364 | 4.49 | 0.0E+00 | C06158.1 | EST_HUMAN | 601145054F2 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3160477 5' |
| 9727 | 22762 | 36366 | 4.49 | 0.0E+00 | C06158.1 | EST_HUMAN | C08158 Human pancreatic islet Homo sapiens cDNA clone hbc5605 |
| 9729 | 22764 | 36368 | 3.38 | 0.0E+00 | BE746215.1 | EST_HUMAN | C08158 Human pancreatic islet Homo sapiens cDNA clone hbc5605 |
| 9739 | 22804 | 36378 | 2.03 | 0.0E+00 | 11437282 | NT | 601678883F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3827548 5' |
| 9739 | 22804 | 36379 | 2.03 | 0.0E+00 | 11437282 | NT | Homo sapiens solute carrier family 21 (organic anion transporter), member 9 (SLC21A9), mRNA |
| 9739 | 22804 | 36380 | 2.03 | 0.0E+00 | 11437282 | NT | Homo sapiens solute carrier family 21 (organic anion transporter), member 9 (SLC21A9), mRNA |
| 9759 | 22897 | 36265 | 1.91 | 0.0E+00 | BE900549.1 | EST_HUMAN | Homo sapiens solute carrier family 21 (organic anion transporter), member 9 (SLC21A9), mRNA |
| 9776 | 22816 | 36394 | 1.5 | 0.0E+00 | AV701829.1 | EST_HUMAN | 601673425F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3856238 5' |
| 9788 | 22828 | 36405 | 2.55 | 0.0E+00 | AF019084.1 | NT | AV701829 ADB Homo sapiens cDNA clone ADBBYH01 5' |
| 9788 | 22828 | 36406 | 2.55 | 0.0E+00 | AF019084.1 | NT | Homo sapiens keratin 2e (KRT2E) gene, complete cds |
| 9821 | 22861 | 36442 | 1.13 | 0.0E+00 | BE082877.1 | EST_HUMAN | Homo sapiens keratin 2e (KRT2E) gene, complete cds |
| 9841 | 22891 | 36464 | 1.72 | 0.0E+00 | AW600283.1 | EST_HUMAN | RC2-B T0842-130300-017-g01 BT0842 Homo sapiens cDNA |
| 9841 | 22891 | 36465 | 1.72 | 0.0E+00 | AW500283.1 | EST_HUMAN | UI-HF-BNO-ekg-b-12-0-J1.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3076943 5' |
| 9850 | 22890 | 36470 | 1.87 | 0.0E+00 | AF025308.1 | NT | UI-HF-BNO-ekg-b-12-0-J1.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3076943 5' |
| 9850 | 22890 | 36471 | 1.87 | 0.0E+00 | AF025308.1 | NT | Homo sapiens chromosome 9 duplication of the T cell receptor beta locus and trypsinogen gene families |
| 9850 | 22890 | 36471 | 1.87 | 0.0E+00 | AF025308.1 | NT | Homo sapiens chromosome 9 duplication of the T cell receptor beta locus and trypsinogen gene families |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 9852 | 22892 | 36472 | 0.52 | 0.0E+00 | BE783272.1 | EST_HUMAN | 601470824F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3874037 5' |
| 9852 | 22892 | 36473 | 0.62 | 0.0E+00 | BE783272.1 | EST_HUMAN | 601470824F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3874037 5' |
| 9861 | 22901 | 36485 | 0.63 | 0.0E+00 | W56829.1 | EST_HUMAN | zdf6a11.1 Sources_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:340844 5' |
| 9861 | 22901 | 36486 | 0.63 | 0.0E+00 | W56829.1 | EST_HUMAN | zdf6a11.1 Sources_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:340844 5' |
| 9874 | 22914 | 36489 | 0.46 | 0.0E+00 | AF208054.1 | NT | Homo sapiens non-inhibitory killer-cell Ig-like receptor KIR (KIR2DS5) mRNA, complete cds |
| 9875 | 22916 | 36500 | 1.04 | 0.0E+00 | AB035356.1 | NT | Homo sapiens mRNA for neuron α -alpha protein, complete cds |
| 9879 | 22919 | 36500 | 0.64 | 0.0E+00 | AI124780.1 | EST_HUMAN | em56a11.1 Johnston frontal cortex Homo sapiens cDNA clone IMAGE:1639548 3' |
| 9881 | 22921 | 36505 | 3 | 0.0E+00 | AW500526.1 | EST_HUMAN | UI-HF-BN0-ak-q-07-0-UI.r1 NIH_MGC_60 Homo sapiens cDNA clone IMAGE:3077394 5' |
| 9925 | 22865 | 36654 | 2.65 | 0.0E+00 | AF006658.1 | NT | Multiple sclerosis associated retrovirus polyprotein (pol) mRNA, partial cds |
| 9953 | 22892 | 36585 | 2.69 | 0.0E+00 | S78466.1 | NT | AIQF=androgen-induced growth factor AIGF [human, placenta, Genomic/mRNA, 498 nt, segment 5 of 6] |
| 9953 | 22892 | 36586 | 2.69 | 0.0E+00 | S78466.1 | NT | AIQF=androgen-induced growth factor AIGF [human, placenta, Genomic/mRNA, 498 nt, segment 5 of 5] |
| 9956 | 22895 | 36591 | 2.72 | 0.0E+00 | BE593320.1 | EST_HUMAN | 601334603F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3688680 5' |
| 9976 | 23015 | 36608 | 1.28 | 0.0E+00 | AW363135.1 | EST_HUMAN | CM2-CT0311-301199-043-h11 CT0311 Homo sapiens cDNA |
| 9987 | 23035 | 36627 | 0.66 | 0.0E+00 | 11436432 | NT | Homo sapiens multimeth (MMRN), mRNA |
| 9998 | 23038 | 36628 | 0.62 | 0.0E+00 | 11424387 | NT | Homo sapiens leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 3 (LILRB3), mRNA |
| 10007 | 23046 | 36638 | 0.91 | 0.0E+00 | BE208710.1 | EST_HUMAN | b526c01.x1 NIH_MGC_5 Homo sapiens cDNA clone IMAGE:2984000 3' |
| 10024 | 23082 | 36658 | 4.48 | 0.0E+00 | AU132349.1 | EST_HUMAN | AU132349 NT2RP3 Homo sapiens cDNA clone NT2RP3004260 5' |
| 10024 | 23082 | 36659 | 4.48 | 0.0E+00 | AU132349.1 | EST_HUMAN | AU132349 NT2RP3 Homo sapiens cDNA clone NT2RP3004260 5' |
| 10033 | 23071 | 36671 | 0.95 | 0.0E+00 | AW500036.1 | EST_HUMAN | UI-HF-BP0p-af-1-05-0-UI.r1 NIH_MGC_31 Homo sapiens cDNA clone IMAGE:3072897 5' |
| 10039 | 23077 | 36677 | 13.26 | 0.0E+00 | BE740460.1 | EST_HUMAN | 601565558F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3949383 5' |
| 10052 | 23090 | 36692 | 13.26 | 0.0E+00 | BE740460.1 | EST_HUMAN | 601565558F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3949383 5' |
| 10069 | 23107 | 36710 | 1.54 | 0.0E+00 | AL042278.1 | EST_HUMAN | Homo sapiens KIAA0345 gene product (KIAA0345), mRNA |
| 10074 | 23112 | 36716 | 0.57 | 0.0E+00 | AL041094.2 | EST_HUMAN | DKFZp434L0120_r1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434L0120 5' |
| 10084 | 23122 | 36723 | 2.32 | 0.0E+00 | AU132349.1 | EST_HUMAN | DKFZp434B2416_r1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434B2416 5' |
| 10085 | 23123 | 36724 | 2.16 | 0.0E+00 | AF162308.1 | NT | AU132349 NT2RP3 Homo sapiens cDNA clone NT2RP3004260 5' |
| 10112 | 23150 | 36751 | 2.84 | 0.0E+00 | AF009220.1 | NT | Homo sapiens proteoglycan alpha 12 (PCDH-alpha12) mRNA, complete cds |
| 10122 | 23150 | 36752 | 2.84 | 0.0E+00 | AF009220.1 | NT | Homo sapiens leukocyte immunoglobulin-like receptor-1 mRNA, complete cds |
| 10128 | 23168 | 36765 | 1.13 | 0.0E+00 | BF002898.1 | EST_HUMAN | Homo sapiens leukocyte immunoglobulin-like receptor-1 mRNA, complete cds |
| 10160 | 23197 | 36793 | 2.75 | 0.0E+00 | BE280793.1 | EST_HUMAN | MR4-TN0114-110900-101-e04 TN0114 Homo sapiens cDNA |
| 10169 | 23208 | 36799 | 6.57 | 0.0E+00 | BE388700.1 | EST_HUMAN | 601155227F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3138788 5' |
| | | | | | | | 601266331F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3613045 5' |

Page 538 of 550
Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 10189 | 23206 | 36800 | 0.57 | 0.0E+00 | BE368700.1 | EST_HUMAN | 601286351F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3813045 5' |
| 10178 | 23216 | 36806 | 0.87 | 0.0E+00 | AW236269.1 | EST_HUMAN | x772501.x1 NCI_CGAP_OV1.1 Homo sapiens cDNA clone IMAGE:2696977 3' similar to gb:X02162_cds1 L- |
| 10170 | 23216 | 36807 | 0.84 | 0.0E+00 | AA341305.1 | EST_HUMAN | LACTATE DEHYDROGENASE M CHAIN (HUMAN); |
| 10188 | 23226 | 36819 | 0.59 | 0.0E+00 | 11427235 | NT | EST48740 Feal kidney II Homo sapiens cDNA 5' end |
| 10208 | 23244 | 36834 | 0.94 | 0.0E+00 | AW664113.1 | EST_HUMAN | Homo sapiens Chediak-Higashi syndrome 1 (CHS1), mRNA |
| 10222 | 23258 | 36845 | 5.99 | 0.0E+00 | AU143673.1 | EST_HUMAN | EST376186 IMAGE resequences, MAGH Homo sapiens cDNA |
| 10222 | 23258 | 36846 | 5.99 | 0.0E+00 | AU143673.1 | EST_HUMAN | AU143673 Y78AA1 Homo sapiens cDNA clone Y78AA1002307 5' |
| 10225 | 23261 | 36848 | 3.31 | 0.0E+00 | AF072408.1 | NT | AU143673 Y78AA1 Homo sapiens cDNA clone Y78AA1002307 5' |
| 10228 | 23263 | 36851 | 2.75 | 0.0E+00 | 11421001 | NT | Homo sapiens killer cell inhibitory receptor KIRCI gene, exons 2, 3, and 4 |
| 10228 | 23263 | 36852 | 2.75 | 0.0E+00 | 11421001 | NT | Homo sapiens HEF like Protein (HEFL), mRNA |
| 10261 | 23266 | 36894 | 3.07 | 0.0E+00 | AU136637.1 | EST_HUMAN | Homo sapiens HEF like Protein (HEFL), mRNA |
| 10261 | 23266 | 36895 | 3.07 | 0.0E+00 | AU136637.1 | EST_HUMAN | AU136637 PLACE1 Homo sapiens cDNA clone PLACE1004737 5' |
| 10277 | 23312 | 36909 | 2 | 0.0E+00 | AJ268444.1 | NT | AU136637 PLACE1 Homo sapiens cDNA clone PLACE1004737 5' |
| 10277 | 23312 | 36910 | 2 | 0.0E+00 | AJ268444.1 | NT | Homo sapiens partial RANBP7 gene for RANBP7/importin7 and partial ZNF143 gene |
| 10282 | 23317 | 36917 | 0.73 | 0.0E+00 | AV695712.1 | EST_HUMAN | Homo sapiens partial RANBP7 gene for RANBP7/importin7 and partial ZNF143 gene |
| 10282 | 23317 | 36918 | 0.73 | 0.0E+00 | AV695712.1 | EST_HUMAN | AV695712 GKX Homo sapiens cDNA clone GKDXA07 5' |
| 10288 | 23323 | 36925 | 0.72 | 0.0E+00 | AF072408.1 | EST_HUMAN | AV695712 GKX Homo sapiens cDNA clone GKDXA07 5' |
| 10290 | 23325 | 36926 | 2.42 | 0.0E+00 | AA186387.1 | EST_HUMAN | Homo sapiens muscle 637208 Homo sapiens cDNA clone IMAGE:628197 5' |
| 10317 | 23362 | 36959 | 0.76 | 0.0E+00 | AA131248.1 | EST_HUMAN | zp97h11.1 Stralagene muscle 637208 Homo sapiens cDNA clone IMAGE:628197 5' |
| 10317 | 23352 | 36960 | 0.76 | 0.0E+00 | AA131248.1 | EST_HUMAN | z3101.1.1 Soares_pregnant_uterus_NIH_HPU Homo sapiens cDNA clone IMAGE:503545 5' |
| 10359 | 23394 | 37005 | 1.61 | 0.0E+00 | AF179308.1 | NT | z31101.1 Soares_pregnant_uterus_NIH_HPU Homo sapiens cDNA clone IMAGE:503545 5' |
| 10404 | 23439 | 37046 | 0.99 | 0.0E+00 | BE680558.1 | EST_HUMAN | Homo sapiens KIF4 (KIF4) mRNA, complete cds |
| 10417 | 23452 | 37057 | 5.34 | 0.0E+00 | BE730772.1 | EST_HUMAN | 601497565F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3893667 5' |
| 10417 | 23452 | 37058 | 5.34 | 0.0E+00 | BE730772.1 | EST_HUMAN | 601507012F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3845403 5' |
| 10422 | 23457 | 37062 | 0.8 | 0.0E+00 | AU127403.1 | EST_HUMAN | 601507012F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3845403 5' |
| 10432 | 23467 | 37073 | 0.89 | 0.0E+00 | BE956511.1 | EST_HUMAN | AU127403 NT2RP2 Homo sapiens cDNA clone NT2RP2001212 5' |
| 10432 | 23467 | 37074 | 0.89 | 0.0E+00 | BE956511.1 | EST_HUMAN | 601645134F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:3930177 5' |
| 10450 | 23485 | 37094 | 0.48 | 0.0E+00 | BE97487.1 | EST_HUMAN | 601645134F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:3930177 5' |
| 10460 | 23495 | 37107 | 0.91 | 0.0E+00 | AA311624.1 | EST_HUMAN | 601432317F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3917453 5' |
| 10461 | 23496 | 37108 | 0.56 | 0.0E+00 | 4758827 | NT | EST182353 Jurkat T-cells VI Homo sapiens cDNA 5' end |
| 10473 | 23508 | 37121 | 0.84 | 0.0E+00 | BE891113.1 | EST_HUMAN | Homo sapiens neuraxin III (NRXN3) mRNA |
| 10475 | 23510 | 37123 | 0.77 | 0.0E+00 | 11560151 | NT | 601432228F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3917698 5' |
| 10485 | 23521 | 37130 | 1.66 | 0.0E+00 | AB029280.1 | NT | Homo sapiens hypothetical C2H2 zinc finger protein FLJ22504 (FLJ22504), mRNA |
| | | | | | | | Homo sapiens mRNA for actin binding protein ABP820, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO. | Exon SEQ ID NO. | ORF SEQ ID NO. | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 10487 | 23522 | 37131 | 0.5 | 0.0E+00 | BE304522.1 | EST_HUMAN | 601105459F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2887918 5' |
| 10487 | 23522 | 37132 | 0.5 | 0.0E+00 | BE304522.1 | EST_HUMAN | 601105459F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2887918 5' |
| 10494 | 23528 | 37137 | 5.8 | 0.0E+00 | AB006590.1 | NT | Homo sapiens mRNA for estrogen receptor beta, complete cds |
| 10494 | 23528 | 37138 | 5.8 | 0.0E+00 | AB006590.1 | NT | Homo sapiens mRNA for estrogen receptor beta, complete cds |
| 10502 | 23537 | 37147 | 0.77 | 0.0E+00 | AA704457.1 | EST_HUMAN | Z19808.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:480707 3' similar to gb:M14123_cds1 RETROVIRUS-RELATED GAG POLYPROTEIN (HUMAN); |
| 10504 | 23539 | 37148 | 1.08 | 0.0E+00 | M22821.1 | NT | Human beta 1,4-galactosyl-transferase mRNA, complete cds |
| 10506 | 23541 | 37151 | 4.81 | 0.0E+00 | BF340331.1 | EST_HUMAN | 602037045F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4184939 5' |
| 10508 | 23541 | 37152 | 4.81 | 0.0E+00 | BF340331.1 | EST_HUMAN | 602037045F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4184939 5' |
| 10530 | 23565 | 37172 | 0.59 | 0.0E+00 | BE897149.1 | EST_HUMAN | 601439713F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3924578 5' |
| 10530 | 23565 | 37173 | 0.59 | 0.0E+00 | BE897149.1 | EST_HUMAN | 601439713F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3924578 5' |
| 10595 | 23630 | 37237 | 1.07 | 0.0E+00 | A1631818.1 | EST_HUMAN | wa36e03.x1 NCI_CGAP_K1d11 Homo sapiens cDNA clone IMAGE:2300188 3' similar to TR:Q61204 |
| 10595 | 23630 | 37238 | 1.07 | 0.0E+00 | A1631818.1 | EST_HUMAN | wa36e03.x1 NCI_CGAP_K1d11 Homo sapiens cDNA clone IMAGE:2300188 3' similar to TR:Q61204 |
| 10610 | 23644 | 37262 | 1.64 | 0.0E+00 | T03078.1 | EST_HUMAN | Q61204 NOTCH2-LIKE ; |
| 10638 | 23872 | 37282 | 0.87 | 0.0E+00 | AU122429.1 | EST_HUMAN | FB23A4 Fetal brain, Striatum Homo sapiens cDNA clone FB23A4 3' end |
| 10644 | 23878 | 37288 | 0.48 | 0.0E+00 | 6005921 | NT | AU122429 MAMMA1 Homo sapiens cDNA clone MAMMA1002888 5' |
| 10668 | 23702 | 37312 | 2.22 | 0.0E+00 | BF438218.1 | EST_HUMAN | Homo sapiens triple functional domain (PTPRF Interacting) (TRIO), mRNA |
| 10669 | 23703 | | 1.71 | 0.0E+00 | AV654765.1 | EST_HUMAN | nab45e12.x1 Soares_NSF_F8_QW_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3266271 3' |
| 10689 | 23722 | 37328 | 3.08 | 0.0E+00 | AW517960.1 | EST_HUMAN | AV654765 GLC Homo sapiens cDNA clone GLCQZC07 3' |
| 10693 | 23726 | 37332 | 2.88 | 0.0E+00 | BE549213.1 | EST_HUMAN | XU74601.x1 NCI_CGAP_K1d8 Homo sapiens cDNA clone IMAGE:2807401 3' similar to gb:M69066 MOESIN (HUMAN); |
| 10709 | 23742 | 37348 | 0.82 | 0.0E+00 | 11436005 | NT | 601078764F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3484703 5' |
| 10735 | 23769 | 37378 | 0.52 | 0.0E+00 | X89893.1 | NT | Homo sapiens hypothetical protein DKFZp781P1010 (DKFZp781P1010), mRNA |
| 10736 | 23769 | 37379 | 3.35 | 0.0E+00 | BE781742.1 | EST_HUMAN | H. sapiens mRNA for NK receptor (183 Act1) |
| 10759 | 23791 | 37409 | 2.32 | 0.0E+00 | BE082720.1 | EST_HUMAN | 601467419F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3870700 5' |
| 10759 | 23791 | 37410 | 2.32 | 0.0E+00 | BE082720.1 | EST_HUMAN | RC2-BT0842-150200-012-d03 BT0842 Homo sapiens cDNA |
| 10764 | 23797 | 37417 | 0.67 | 0.0E+00 | Y08032.1 | NT | RC2-BT0842-150200-012-d03 BT0842 Homo sapiens cDNA |
| 10772 | 23805 | 37428 | 0.77 | 0.0E+00 | A1655890.1 | EST_HUMAN | Human endogenous retrovirus-K, LTR US and gag gene |
| 10779 | 23812 | 37435 | 9.19 | 0.0E+00 | BE743215.1 | EST_HUMAN | t64e07.x1 NCI_CGAP_G08 Homo sapiens cDNA clone IMAGE:2244612 3' |
| 10779 | 23812 | 37436 | 9.15 | 0.0E+00 | BE743215.1 | EST_HUMAN | 601573895F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3635198 5' |
| 10784 | 23817 | 37439 | 0.63 | 0.0E+00 | BE617655.1 | EST_HUMAN | 601573895F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3635198 5' |
| 10784 | 23817 | 37440 | 0.63 | 0.0E+00 | BE617655.1 | EST_HUMAN | 601441723T1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:3845956 3' |
| 10784 | 23817 | 37440 | 0.63 | 0.0E+00 | BE617655.1 | EST_HUMAN | 601441723T1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:3845956 3' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 10786 | 23819 | 37442 | 0.46 | 0.0E+00 | AB006900.1 | NT | Homo sapiens mRNA for estrogen receptor beta, complete cds |
| 10786 | 23819 | 37443 | 0.46 | 0.0E+00 | AB006900.1 | NT | Homo sapiens mRNA for estrogen receptor beta, complete cds |
| 10809 | 23842 | 37465 | 0.51 | 0.0E+00 | H39805.1 | EST_HUMAN | yp01a10.r1 Soares breast 3NbH8at Homo sapiens cDNA clone IMAGE:186138 5' |
| 10835 | 23898 | 37491 | 0.54 | 0.0E+00 | D87875.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 10848 | 23879 | 37489 | 0.59 | 0.0E+00 | BE90276.1 | EST_HUMAN | 601308187F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3626128 5' |
| 10863 | 23866 | 37518 | 0.52 | 0.0E+00 | AU126993.1 | EST_HUMAN | AU125988 NT2RM4 Homo sapiens cDNA clone NT2RM4002536 5' |
| 10872 | 23957 | 37586 | 1.84 | 0.0E+00 | AV711075.1 | EST_HUMAN | AV711075 Cui Homo sapiens cDNA clone CUAAG305 5' |
| 10872 | 23957 | 37587 | 1.84 | 0.0E+00 | AV711075.1 | EST_HUMAN | AV711075 Cui Homo sapiens cDNA clone CUAAG305 5' |
| 10874 | 23958 | | 2.55 | 0.0E+00 | AW813783.1 | EST_HUMAN | RC3-ST0197-120200-015-03 S10197 Homo sapiens cDNA |
| 10882 | 23966 | 37595 | 5.5 | 0.0E+00 | AW963363.1 | EST_HUMAN | EST375639 IMAGE resequences, MAGH Homo sapiens cDNA |
| 10895 | 23978 | 37610 | 2.52 | 0.0E+00 | 11431124 | NT | Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 3 (ABCA3), mRNA |
| 10895 | 23979 | 37611 | 2.52 | 0.0E+00 | 11431124 | NT | Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 3 (ABCA3), mRNA |
| 10898 | 23982 | 37614 | 1.7 | 0.0E+00 | AW057621.1 | EST_HUMAN | wy6109.x1 Soares NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2553065 3' similar to TR-Q60568 Q60568 VDX |
| 10906 | 23989 | 37621 | 8.59 | 0.0E+00 | BE243270.1 | EST_HUMAN | TCAAP3D0917 Pediatric acute myelogenous leukemia cell (FAB M1) Baylor-HGSC project-TCAA Homo sapiens cDNA clone TCAAP0917 |
| 10907 | 23990 | 37622 | 2.72 | 0.0E+00 | AI652239.1 | EST_HUMAN | w528a12.x1 NCI_CQAP_G06 Homo sapiens cDNA clone IMAGE:2305974 3' similar to contains element MSR1 MSR1 repetitive element |
| 10907 | 23990 | 37623 | 2.72 | 0.0E+00 | AI652239.1 | EST_HUMAN | w528a12.x1 NCI_CQAP_G06 Homo sapiens cDNA clone IMAGE:2305974 3' similar to contains element MSR1 MSR1 repetitive element |
| 10912 | 23995 | 37628 | 1.48 | 0.0E+00 | BF306642.1 | EST_HUMAN | 601888704F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4122649 5' |
| 10913 | 23996 | 37629 | 1.74 | 0.0E+00 | BE872608.1 | EST_HUMAN | 601451502F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3855289 5' |
| 10913 | 23996 | 37630 | 1.74 | 0.0E+00 | BE872608.1 | EST_HUMAN | 601451502F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3855289 5' |
| 10920 | 24003 | 37637 | 3.59 | 0.0E+00 | 11545911 | NT | Homo sapiens NOD2 protein (NOD2), mRNA |
| 10920 | 24003 | 37638 | 3.59 | 0.0E+00 | 11545911 | NT | Homo sapiens NOD2 protein (NOD2), mRNA |
| 10936 | 24018 | 37651 | 1.52 | 0.0E+00 | AW404785.1 | EST_HUMAN | UJ-HF-BLD-acm-d-04-0-UJ.r1 NIH_MGC_37 Homo sapiens cDNA clone IMAGE:3069383 5' |
| 10940 | 24022 | 37656 | 2.85 | 0.0E+00 | 11424828 | NT | Homo sapiens hypothetical protein FLJ20079 (FLJ20079), mRNA |
| 10941 | 24023 | 37657 | 8.39 | 0.0E+00 | 4504536 | NT | Homo sapiens 5-hydroxytryptamine (serotonin) receptor 1E (HTR1E), mRNA |
| 10941 | 24023 | 37658 | 8.39 | 0.0E+00 | 4504536 | NT | Homo sapiens 5-hydroxytryptamine (serotonin) receptor 1E (HTR1E), mRNA |
| 10942 | 24024 | 37659 | 2.08 | 0.0E+00 | AI891827.1 | EST_HUMAN | wu32606.x1 Soares Dipeptidyl aminopeptidase (serpin) clone IMAGE:2521715 3' |
| 10946 | 24028 | 37665 | 3.22 | 0.0E+00 | BE882109.1 | EST_HUMAN | 601505204F2 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3906865 5' |
| 10950 | 24032 | 37687 | 6.12 | 0.0E+00 | BE891630.1 | EST_HUMAN | 601434522F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918656 5' |
| 10952 | 24034 | 37698 | 1.55 | 0.0E+00 | 8923939 | NT | Homo sapiens myosin, heavy polypeptide 2, skeletal muscle, adult (MYH2), mRNA |
| 10952 | 24034 | 37699 | 1.55 | 0.0E+00 | 8923939 | NT | Homo sapiens myosin, heavy polypeptide 2, skeletal muscle, adult (MYH2), mRNA |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 10955 | 24046 | 37680 | 22.14 | 0.0E+00 | BE903304.1 | EST_HUMAN | 601674332F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3937343 5' |
| 10988 | 19087 | 32399 | 1.85 | 0.0E+00 | AA195905.1 | EST_HUMAN | z956b1.1 r1 Stragene muscle 837208 Homo sapiens cDNA clone IMAGE:627633 5' similar to gb:X03740 |
| 10990 | 24069 | 37703 | 4.49 | 0.0E+00 | BE763498.1 | EST_HUMAN | MYOSIN HEAVY CHAIN, SKELETAL MUSCLE (HUMAN); |
| 10998 | 24077 | 37710 | 2.4 | 0.0E+00 | BE729708.1 | EST_HUMAN | 601588828F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943015 5' |
| 10998 | 24077 | 37711 | 2.4 | 0.0E+00 | BE729708.1 | EST_HUMAN | 601588284F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3832575 5' |
| 10999 | 24078 | 37712 | 11.88 | 0.0E+00 | AV727382.1 | EST_HUMAN | 601562284F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3832575 5' |
| 10999 | 24078 | 37713 | 11.68 | 0.0E+00 | AV727382.1 | EST_HUMAN | AV727382 HTC Homo sapiens cDNA clone HTCAQH08 5' |
| 10999 | 24078 | 37713 | 11.68 | 0.0E+00 | AV727382.1 | EST_HUMAN | AV727382 HTC Homo sapiens cDNA clone HTCAQH08 5' |
| 11003 | 24082 | 37718 | 1.6 | 0.0E+00 | R17132.1 | EST_HUMAN | yg08609.1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:31674 5' |
| 11003 | 24082 | 37718 | 1.6 | 0.0E+00 | R17132.1 | EST_HUMAN | yg08609.1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:31674 5' |
| 11009 | 24088 | | 2.82 | 0.0E+00 | AW139414.1 | EST_HUMAN | UI-H-B11-adj-q-08-0-UI.st NCL CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2717074 3' |
| 11014 | 24093 | 37732 | 11.81 | 0.0E+00 | AW516056.1 | EST_HUMAN | xy04910.x1 NCL CGAP_Lym12 Homo sapiens cDNA clone IMAGE:2852226 3' similar to gb:M60854 40S |
| 11020 | 24099 | 37737 | 4.44 | 0.0E+00 | AU135741.1 | EST_HUMAN | RIBOSOMAL PROTEIN S16 (HUMAN); |
| 11026 | 24105 | 37741 | 2.66 | 0.0E+00 | AW593333.1 | EST_HUMAN | AU135741 PLAGE1 Homo sapiens cDNA clone PLACE1002794 5' |
| 11026 | 24105 | 37742 | 2.66 | 0.0E+00 | AW593333.1 | EST_HUMAN | hg13d02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2845475 3' similar to contains element MSR1 repetitive element; |
| 11026 | 24105 | 37743 | 2.56 | 0.0E+00 | AW593333.1 | EST_HUMAN | hg13d02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2845475 3' similar to contains element MSR1 repetitive element; |
| 11028 | 24107 | 37744 | 1.87 | 0.0E+00 | Z34697.1 | EST_HUMAN | hg13d02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2845475 3' similar to contains element MSR1 repetitive element; |
| 11029 | 24108 | 37745 | 2.76 | 0.0E+00 | F13069.1 | EST_HUMAN | H.sapiens mRNA for H1 histamine receptor |
| 11037 | 24116 | 37750 | 2.35 | 0.0E+00 | D10083.1 | NT | HSC3/C031 normalized Infant brain cDNA Homo sapiens cDNA clone c-3/c03 |
| 11054 | 24131 | 37767 | 1.71 | 0.0E+00 | AW338094.1 | EST_HUMAN | Homo sapiens RGH1 gene, retrovirus-like element |
| 11055 | 24132 | 37768 | 3.75 | 0.0E+00 | AW451230.1 | EST_HUMAN | hw68f0.1.x1 NCL CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2832685 3' similar to gb:X17116 IG MU |
| 11055 | 24132 | 37769 | 3.75 | 0.0E+00 | AW451230.1 | EST_HUMAN | CHAIN C REGION (HUMAN); |
| 11058 | 13443 | | 9.52 | 0.0E+00 | 4506832 | NT | UI-H-B13-ali-h-e-01-c-UI.st NCL CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2736649 3' |
| 11060 | 24136 | 37771 | 1.79 | 0.0E+00 | AB014587.1 | EST_HUMAN | UI-H-B13-ali-h-e-01-c-UI.st NCL CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2736649 3' |
| 11073 | 24148 | 37787 | 1.92 | 0.0E+00 | BE298448.1 | EST_HUMAN | Homo sapiens ribosomal protein L31 (RPL31) mRNA |
| 11087 | 24161 | 37797 | 1.47 | 0.0E+00 | AB011117.1 | NT | Homo sapiens mRNA for KIAA0667 protein, partial cds |
| 11087 | 24161 | 37797 | 1.47 | 0.0E+00 | AB011117.1 | NT | Homo sapiens mRNA for KIAA0646 protein, partial cds |
| 11087 | 24161 | 37797 | 1.47 | 0.0E+00 | AB011117.1 | NT | Homo sapiens mRNA for KIAA0646 protein, partial cds |
| 11092 | 24166 | 37803 | 1.39 | 0.0E+00 | AA377505.1 | EST_HUMAN | EST180347 Synovial sarcoma Homo sapiens cDNA 5' end similar to LERK-2, placenta |
| 11106 | 24178 | 37813 | 3.3 | 0.0E+00 | BE792165.1 | EST_HUMAN | 601582046F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3836538 5' |
| 11107 | 24179 | | 76.9 | 0.0E+00 | BF684081.1 | EST_HUMAN | 602141405F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4302432 5' |

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| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 11108 | 24180 | 37814 | 1.45 | 0.0E+00 | BE269288.1 | EST_HUMAN | 601198342F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3544259 5' |
| 11110 | 24182 | 37816 | 7.93 | 0.0E+00 | AU118386.1 | EST_HUMAN | AU118386 HEMBA1 Homo sapiens cDNA clone HEMBA1003488 5' |
| 11111 | 24183 | | 1.91 | 0.0E+00 | AW238269.1 | EST_HUMAN | xn72801.x1 NCI_CGAP_CML1 Homo sapiens cDNA clone IMAGE:2639077 3' similar to gb:202162_cdo1 L-LACTATE DEHYDROGENASE M CHAIN (HUMAN); |
| 11116 | 24188 | 37820 | 5.71 | 0.0E+00 | A1149809.1 | EST_HUMAN | q43a03.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1752772 3' |
| 11116 | 24188 | 37821 | 5.71 | 0.0E+00 | A1149809.1 | EST_HUMAN | q43a03.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1752772 3' |
| 11117 | 24189 | 37822 | 2.63 | 0.0E+00 | AW361837.1 | EST_HUMAN | QV4-ST0234-121199-032-508 ST0234 Homo sapiens cDNA |
| 11127 | 24199 | | 11.83 | 0.0E+00 | AU116908.1 | EST_HUMAN | AU116908 HEMBA1 Homo sapiens cDNA clone HEMBA1000255 5' |
| 11130 | 24202 | 37827 | 9.67 | 0.0E+00 | 11424726 | NT | Homo sapiens insulin receptor (INSR), mRNA |
| 11132 | 24204 | 37828 | 2.14 | 0.0E+00 | A137350.1 | EST_HUMAN | q495c12.x1 NCI_CGAP_U12 Homo sapiens cDNA clone IMAGE:1989334 3' similar to TR:Q14673 Q14673 KIAA0164 PROTEIN.; |
| 11132 | 24204 | 37829 | 2.14 | 0.0E+00 | A137350.1 | EST_HUMAN | q495c12.x1 NCI_CGAP_U12 Homo sapiens cDNA clone IMAGE:1989334 3' similar to TR:Q14673 Q14673 KIAA0164 PROTEIN.; |
| 11137 | 24209 | 37835 | 1.63 | 0.0E+00 | BF340308.1 | EST_HUMAN | 602037014F1 NCI_CGAP_Brr64 Homo sapiens cDNA clone IMAGE:4184979 5' |
| 11139 | 24211 | 37837 | 13.91 | 0.0E+00 | BE281209.1 | EST_HUMAN | 601148337F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3163310 5' |
| 11144 | 24216 | 37843 | 2.19 | 0.0E+00 | AB029040.1 | NT | Homo sapiens mRNA for KIAA1117 protein, partial cds |
| 11147 | 24219 | 37846 | 1.51 | 0.0E+00 | AB007832.1 | NT | Homo sapiens mRNA for KIAA0463 protein, partial cds |
| 11151 | 24222 | 37850 | 3.89 | 0.0E+00 | U60326.1 | NT | Human protein kinase C substrate 80K-H (PRKCSH) gene, exon 15-17 |
| 11155 | 24226 | 37856 | 2.43 | 0.0E+00 | BE770336.1 | EST_HUMAN | RC1-FT0134-170700-012407 FT0134 Homo sapiens cDNA |
| 11155 | 24226 | 37856 | 2.43 | 0.0E+00 | BE770336.1 | EST_HUMAN | RC1-FT0134-170700-012407 FT0134 Homo sapiens cDNA |
| 11177 | 24246 | 37870 | 51.22 | 0.0E+00 | AA740782.1 | EST_HUMAN | 0632607.s1 NCI_CGAP_Kd5 Homo sapiens cDNA clone IMAGE:1325412 3' similar to contains element MSR1 repetitive element.; |
| 11186 | 24255 | 37880 | 2.81 | 0.0E+00 | AF252303.1 | NT | Homo sapiens signaling lymphocytic activation molecule (SLAM) gene, exon 2 |
| 11189 | 24258 | 37903 | 1.71 | 0.0E+00 | BE266478.1 | EST_HUMAN | 601192748F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3536887 5' |
| 11189 | 24258 | 37904 | 1.71 | 0.0E+00 | BE266478.1 | EST_HUMAN | 601192748F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3536887 5' |
| 11201 | 24270 | 37906 | 4.9 | 0.0E+00 | C05089.1 | EST_HUMAN | C05089 Human heart cDNA (YNakamura) Homo sapiens cDNA clone 3NHC4817 |
| 11208 | 24277 | 37914 | 2.1 | 0.0E+00 | AA746375.1 | EST_HUMAN | 0656101.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1308009 6' |
| 11208 | 24277 | 37915 | 2.1 | 0.0E+00 | AA746375.1 | EST_HUMAN | 0656101.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1308009 5' |
| 11218 | 24287 | 37926 | 2.69 | 0.0E+00 | M78448.1 | EST_HUMAN | EST00598 Fetal brain, Stratagene (cat#836206) Homo sapiens cDNA clone HFBCC28 |
| 11218 | 24287 | 37927 | 2.69 | 0.0E+00 | M78448.1 | EST_HUMAN | EST00598 Fetal brain, Stratagene (cat#836206) Homo sapiens cDNA clone HFBCC28 |
| 11221 | 24290 | 37930 | 1.76 | 0.0E+00 | BF353625.1 | EST_HUMAN | QV2-HT0698-020800-295-d07 HT0698 Homo sapiens cDNA |
| 11222 | 24291 | 37931 | 6.5 | 0.0E+00 | AL157608.1 | EST_HUMAN | DKF2p761j2116_r1_761 (synonym: hamy2) Homo sapiens cDNA clone DKF2p761j2116 5' |
| 11234 | 24303 | 37940 | 1.86 | 0.0E+00 | BE562822.1 | EST_HUMAN | 601336530F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3680390 6' |
| 11236 | 24305 | 37942 | 6.05 | 0.0E+00 | AU116988.1 | EST_HUMAN | AU116988 HEMBA1 Homo sapiens cDNA clone HEMBA1000424 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E- Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|--|-----------------------------|-------------------------------|---|
| 11250 | 24319 | 37859 | 1.75 | 0.0E+00 | AV693656.1 | EST_HUMAN | AV693656 GKC Homo sapiens cDNA clone GKCCN03 5' |
| 11260 | 24329 | 37869 | 2.97 | 0.0E+00 | BF386563.1 | EST_HUMAN | IL3-NT0104-200500-143-A07 NT0104 Homo sapiens cDNA |
| 11288 | 24354 | 37894 | 2.4 | 0.0E+00 | BE182360.1 | EST_HUMAN | PMO-HT0845-060500-002-E05 HT0845 Homo sapiens cDNA |
| 11288 | 24354 | 37895 | 2.4 | 0.0E+00 | BE182360.1 | EST_HUMAN | PMO-HT0845-060500-002-E05 HT0845 Homo sapiens cDNA |
| 11288 | 24356 | | 1.51 | 0.0E+00 | AV701152.1 | EST_HUMAN | AV701152 ADA Homo sapiens cDNA clone ADAAD06 5' |
| 11305 | 24370 | 38011 | 3.02 | 0.0E+00 | BE898423.1 | EST_HUMAN | 607439392FT NIH_MGC 72 Homo sapiens cDNA clone IMAGE:3924142 5' |
| 11311 | 24375 | 38019 | 1.83 | 0.0E+00 | AW500307.1 | EST_HUMAN | UI-HF-BN0-alkg-d-02-0-UI-1 NIH_MGC 50 Homo sapiens cDNA clone IMAGE:3077019 5' |
| 11311 | 24375 | 38020 | 1.83 | 0.0E+00 | AW500307.1 | EST_HUMAN | UI-HF-BN0-alkg-d-02-0-UI-1 NIH_MGC 50 Homo sapiens cDNA clone IMAGE:3077019 5' |
| | | | | | | | b678c04.Y1 NIH_MGC 10 Homo sapiens cDNA clone IMAGE:3048488 5' similar to gb:Y00345_cds1 POLYADENYLATE-BINDING PROTEIN (HUMAN); gb:X65553 M.musculus mRNA for pcx(A) binding protein (MOUSE); |
| 11314 | 24378 | 38023 | 2.49 | 0.0E+00 | BE018293.1 | EST_HUMAN | MR4-ST0118-041099-010-A12 ST0118 Homo sapiens cDNA |
| 11345 | 24389 | 38058 | 1.45 | 0.0E+00 | AW387766.1 | EST_HUMAN | MR4-ST0118-041099-010-A12 ST0118 Homo sapiens cDNA |
| 11345 | 24389 | 38059 | 1.45 | 0.0E+00 | AW387766.1 | EST_HUMAN | MR4-ST0118-041099-010-A12 ST0118 Homo sapiens cDNA |
| 11353 | 24415 | 38070 | 3.23 | 0.0E+00 | BE897853.1 | EST_HUMAN | 607440446F1 NIH_MGC 72 Homo sapiens cDNA clone IMAGE:3925403 5' |
| 11355 | 24417 | 38073 | 2.24 | 0.0E+00 | AI459545.1 | EST_HUMAN | ac86g11.x1 Schiller meningioma Homo sapiens cDNA clone IMAGE:1952804 3' |
| 11355 | 24417 | 38074 | 2.24 | 0.0E+00 | AI459545.1 | EST_HUMAN | ac86g11.x1 Schiller meningioma Homo sapiens cDNA clone IMAGE:1952804 3' |
| 11369 | 24430 | 38087 | 1.89 | 0.0E+00 | AL042278.1 | EST_HUMAN | DKFZp434L0120_r1 434 (synonym: hhes3) Homo sapiens cDNA clone DKFZp434L0120 5' |
| 11390 | 24451 | 38112 | 1.37 | 0.0E+00 | AI073917.1 | EST_HUMAN | ou81d04.x1 NCL CGAP_B2 Homo sapiens cDNA clone IMAGE:1632285 3' similar to SW:LRP1_HUMAN Q07954 LOW-DENSITY LIPOPROTEIN RECEPTOR-RELATED PROTEIN 1 PRECURSOR; |
| 11390 | 24451 | 38113 | 1.37 | 0.0E+00 | AI073917.1 | EST_HUMAN | ou81d04.x1 NCL CGAP_B2 Homo sapiens cDNA clone IMAGE:1632285 3' similar to SW:LRP1_HUMAN Q07954 LOW-DENSITY LIPOPROTEIN RECEPTOR-RELATED PROTEIN 1 PRECURSOR; |
| 11390 | 24451 | | | | | | ou81d04.x1 NCL CGAP_B2 Homo sapiens cDNA clone IMAGE:1632285 3' similar to SW:LRP1_HUMAN Q07954 LOW-DENSITY LIPOPROTEIN RECEPTOR-RELATED PROTEIN 1 PRECURSOR; |
| 11404 | 24485 | 38130 | 3.8 | 0.0E+00 | 4758827 | NT | Homo sapiens neuroxin III (NRXN3) mRNA |
| 11405 | 24486 | 38131 | 24.41 | 0.0E+00 | BF206561.1 | EST_HUMAN | 6071870902F1 NIH_MGC 19 Homo sapiens cDNA clone IMAGE:4101433 5' |
| 11411 | 24472 | 38137 | 11.85 | 0.0E+00 | AW207734.1 | EST_HUMAN | UI-H-B12-ages-h-01-0-UI-1 NCL CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2724312 3' |
| 11416 | 24477 | 38141 | 3.93 | 0.0E+00 | AB018260.1 | NT | Homo sapiens mRNA for KIAA0717 protein, partial cds |
| 11416 | 24477 | 38142 | 3.93 | 0.0E+00 | AB018260.1 | NT | Homo sapiens mRNA for KIAA0717 protein, partial cds |
| 11418 | 24479 | 38144 | 2.63 | 0.0E+00 | BE208848.1 | EST_HUMAN | ba04d07.y1 NIH_MGC 7 Homo sapiens cDNA clone IMAGE:2823373 5' similar to TR:O76022 O76022 E1B 55KDA-ASSOCIATED PROTEIN.; |

Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 11418 | 24479 | 38145 | 2.63 | 0.0E+00 | BE206846.1 | EST_HUMAN | ba04d07.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823373 5' similar to TR:O76022 O76022 E1B-55KDA-ASSOCIATED PROTEIN ; |
| 11429 | 24480 | 38155 | 2.37 | 0.0E+00 | 11528409 | NT | Homo sapiens KIAA0426 gene product (KIAA0426), mRNA |
| 11438 | 24489 | 38160 | 1.68 | 0.0E+00 | AI075915.1 | EST_HUMAN | ov48g07.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1840412 3' similar to TR:Q14507 |
| 11445 | 24503 | 38172 | 1.73 | 0.0E+00 | 11024711 | NT | Q14507 EPIDIDYMIS-SPECIFIC GENE PRODUCT, ALPHA ; |
| 11448 | 24509 | 38176 | 1.98 | 0.0E+00 | BF093887.1 | EST_HUMAN | Homo sapiens myosin, heavy polypeptide 4, skeletal muscle (MYH4), mRNA |
| 11448 | 20710 | 34189 | 1.94 | 0.0E+00 | L32832.1 | NT | QV0-JIM0091-120900-385-b12 UM0091 Homo sapiens cDNA |
| 11452 | 24512 | 38178 | 4.61 | 0.0E+00 | BE148076.1 | EST_HUMAN | Homo sapiens zinc finger homeodomain protein (ATBF1-A) mRNA, complete cds |
| 11452 | 24512 | 38178 | 4.61 | 0.0E+00 | BE148076.1 | EST_HUMAN | RC3-HT0230-040500-110-n04 HT0230 Homo sapiens cDNA |
| 11475 | 24534 | 38204 | 1.66 | 0.0E+00 | AW673469.1 | EST_HUMAN | RC3-HT0230-040500-110-n04 HT0230 Homo sapiens cDNA |
| 11475 | 24534 | 38205 | 1.66 | 0.0E+00 | AW673469.1 | EST_HUMAN | ba54d08.y3 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2800367 5' similar to TR:O60275 O60275 KIAA0522 PROTEIN ; |
| 11490 | 24549 | 38223 | 4.84 | 0.0E+00 | BF507876.1 | EST_HUMAN | ba54d08.y3 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2800367 5' similar to TR:O60275 O60275 KIAA0522 PROTEIN ; |
| 11490 | 24549 | 38224 | 4.84 | 0.0E+00 | BF507876.1 | EST_HUMAN | UI-H-B14-ack-b-10-Q-U1.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3085028 3' |
| 11498 | 24554 | 38229 | 4.65 | 0.0E+00 | AU135170.1 | EST_HUMAN | UI-H-B14-ack-b-10-Q-U1.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3085028 3' |
| 11501 | 24559 | 38234 | 2.07 | 0.0E+00 | BF576138.1 | EST_HUMAN | 602132459F1 NIH_MGC_81 Homo sapiens cDNA clone PLACE1001381 5' |
| 11501 | 24559 | 38235 | 2.07 | 0.0E+00 | BF576138.1 | EST_HUMAN | 602132459F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4271830 5' |
| 11503 | 24561 | 38238 | 4.06 | 0.0E+00 | BE976401.1 | EST_HUMAN | 602132459F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4271830 5' |
| 11503 | 24561 | 38239 | 4.06 | 0.0E+00 | BE976401.1 | EST_HUMAN | 601486828F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3889207 5' |
| 11511 | 24569 | 38246 | 1.61 | 0.0E+00 | D87682.1 | NT | 601486828F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3889207 5' |
| 11516 | 24573 | 38262 | 3.87 | 0.0E+00 | BF240536.1 | EST_HUMAN | Human mRNA for KIAA0241 gene, partial cds |
| 11531 | 24587 | 38263 | 1.81 | 0.0E+00 | AB037737.1 | NT | 601875630F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4099710 5' |
| 11535 | 24591 | 38266 | 3.09 | 0.0E+00 | AB037737.1 | NT | Homo sapiens mRNA for KIAA1316 protein, partial cds |
| 11535 | 24591 | 38267 | 3.09 | 0.0E+00 | 11430868 | NT | Homo sapiens mRNA for KIAA1316 protein, partial cds |
| 11553 | 24608 | 38287 | 6.13 | 0.0E+00 | 4803544 | NT | Homo sapiens retinoblastoma-like 2 (p130) (RBL2), mRNA |
| 11560 | 24615 | 38294 | 2.06 | 0.0E+00 | BF576267.1 | EST_HUMAN | Homo sapiens retinoblastoma-like 2 (p130) (RBL2), mRNA |
| 11562 | 24617 | 38297 | 3.53 | 0.0E+00 | AW328173.1 | EST_HUMAN | Homo sapiens eukaryotic translation initiation factor 6A (EIF5A) mRNA |
| 11567 | 24622 | | 42.5 | 0.0E+00 | M56083.1 | NT | 602134132F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4289502 5' |
| 11571 | 24628 | 38305 | 1.76 | 0.0E+00 | AI660968.1 | EST_HUMAN | 602134132F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4289502 5' |
| 11574 | 24629 | 38307 | 3.37 | 0.0E+00 | BF306998.1 | EST_HUMAN | 601889823F1 NIH_MGC_3 Homo sapiens cDNA clone IMAGE:2847177 5' |
| | | | | | | | Human gamma actin-like pseudogene, complete cds |
| | | | | | | | wt20e11.x1 Soares_Diagnostic_center_NHUC Homo sapiens cDNA clone IMAGE:2351180 3' similar to |
| | | | | | | | gb:M87789 IG GAMMA-1 CHAIN C REGION (HUMAN); |
| | | | | | | | 601889823F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4123848 5' |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 11574 | 24629 | 38308 | 3.37 | 0.0E+00 | BF306988.1 | EST_HUMAN | 601869823F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4123948 6' |
| 11591 | 24636 | 38315 | 47.2 | 0.0E+00 | BF382482.1 | EST_HUMAN | Q12NN0054-230800-333-c04 NN0054 Homo sapiens cDNA |
| 11601 | 24654 | 38338 | 2.32 | 0.0E+00 | U36204.1 | NT | Human beta-prime-adaptin (BAM22) gene, exon 18 |
| 11601 | 24654 | 38339 | 2.32 | 0.0E+00 | U36204.1 | NT | Human beta-prime-adaptin (BAM22) gene, exon 18 |
| 11606 | 24656 | | 4.33 | 0.0E+00 | BE897051.1 | EST_HUMAN | 601439605F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3924677 6' |
| 11607 | 24660 | | 2.37 | 0.0E+00 | 4503788 | NT | Homo sapiens tyrosine-related kinase (FRK) mRNA |
| 11621 | 24672 | 38361 | 2.34 | 0.0E+00 | 8923698 | NT | Homo sapiens golgin-like protein (GLP), mRNA |
| 11623 | 24674 | | 2.07 | 0.0E+00 | BF207682.1 | EST_HUMAN | 601861947F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:4081715 6' |
| 11636 | 24716 | 38407 | 4.53 | 0.0E+00 | BE206846.1 | EST_HUMAN | ba04d07.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823373 5' similar to TR:O76022 O76022 E1B |
| 11636 | 24716 | 38408 | 4.53 | 0.0E+00 | BE206846.1 | EST_HUMAN | 55KDA-ASSOCIATED PROTEIN ; |
| 11638 | 24718 | 38410 | 3.60 | 0.0E+00 | AW763028.1 | EST_HUMAN | ba04d07.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823373 5' similar to TR:O76022 O76022 E1B |
| 11643 | 24723 | | 3.01 | 0.0E+00 | AA558707.1 | EST_HUMAN | 55KDA-ASSOCIATED PROTEIN ; |
| 11644 | 18590 | 31562 | 2.56 | 0.0E+00 | AI934994.1 | EST_HUMAN | QV0-G10225-101298-071-f08 C10225 Homo sapiens cDNA |
| 11645 | 24724 | 38416 | 7.51 | 0.0E+00 | AW327895.1 | EST_HUMAN | ni42c08.s1 NCL_CGAP_P14 Homo sapiens cDNA clone IMAGE:1043942 similar to gb:M85178 ALPHA-ACTININ 1, CYTOSKELETAL ISOFORM (HUMAN); |
| 11684 | 25870 | 38435 | 1.78 | 0.0E+00 | AW292776.1 | EST_HUMAN | wp09g08.x1 NCL_CGAP_K1d12 Homo sapiens cDNA clone IMAGE:2464094 3' |
| 11671 | 23899 | 37522 | 1.93 | 0.0E+00 | 4758827 | NT | di02508.x1 NIH_MGC_3 Homo sapiens cDNA clone IMAGE:2848918 6' |
| 11677 | 24676 | 38367 | 1.35 | 0.0E+00 | BE254058.1 | EST_HUMAN | UI-H-BW0-aj-d-07-0-U1.s1 NCL_CGAP_Sub88 Homo sapiens cDNA clone IMAGE:2729508 3' |
| 11680 | 24679 | 38369 | 1.79 | 0.0E+00 | BE965909.2 | EST_HUMAN | Homo sapiens neurixin III (NRXN3) mRNA |
| 11680 | 24679 | 38370 | 1.79 | 0.0E+00 | BE965909.2 | EST_HUMAN | 601113903F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3354600 6' |
| 11681 | 24680 | 38371 | 3.81 | 0.0E+00 | BE185656.1 | EST_HUMAN | 601659088R1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3806916 3' |
| 11682 | 24681 | | 1.39 | 0.0E+00 | BF513960.1 | EST_HUMAN | 601659088R1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3806916 3' |
| 11686 | 24693 | 38384 | 7.19 | 0.0E+00 | AL046940.1 | EST_HUMAN | IL5-H10731-020500-077-05 H10731 Homo sapiens cDNA |
| 11686 | 24693 | 38385 | 7.19 | 0.0E+00 | AL046940.1 | EST_HUMAN | UI-H-BW1-amy-a-05-0-U1.s1 NCL_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3071121 3' |
| 11706 | 24703 | 38395 | 10.19 | 0.0E+00 | AI923116.1 | EST_HUMAN | DKFZp434G178.t1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434G178 5' |
| 11708 | 24748 | 38440 | 4.47 | 0.0E+00 | AA760913.1 | EST_HUMAN | DKFZp434G178.t1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434G178 5' |
| 11708 | 24748 | 38441 | 4.47 | 0.0E+00 | AA760913.1 | EST_HUMAN | wn83g03.x1 NCL_CGAP_U1 Homo sapiens cDNA clone IMAGE:2452468 3' similar to gb:S37431 LAMININ RECEPTOR (HUMAN); |
| 11713 | 24753 | 38447 | 2.21 | 0.0E+00 | BE91046.1 | EST_HUMAN | nz11c07.s1 NCL_CGAP_G0B1 Homo sapiens cDNA clone IMAGE:1287468 3' similar to TR:Q13686 |
| | | | | | | | Q13686 ALKB HOMOLOG PROTEIN ; |
| | | | | | | | nz11c07.s1 NCL_CGAP_G0B1 Homo sapiens cDNA clone IMAGE:1287468 3' similar to TR:Q13686 |
| | | | | | | | Q13686 ALKB HOMOLOG PROTEIN ; |
| | | | | | | | 601501090F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3802828 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 11723 | 23909 | 37533 | 11.84 | 0.0E+00 | BE976347.1 | EST_HUMAN | 7127112.x1 NCL_CGAP_C11.1 Homo sapiens cDNA clone IMAGE:3295919 3' similar to TR:000409 000409 CHECKPOINT SUPPRESSOR 1.; |
| 11725 | 23911 | 37535 | 1.47 | 0.0E+00 | AB933358.1 | EST_HUMAN | 568609.x1 NCL_CGAP_U1 Homo sapiens cDNA clone IMAGE:2274821 3' similar to gb:M65542 INTERFERON-INDUCED GUANYLATE-BINDING PROTEIN 1 (HUMAN); |
| 11727 | 23913 | 37537 | 3.13 | 0.0E+00 | BE616666.1 | EST_HUMAN | 601279335F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3611144 5' |
| 11727 | 23913 | 37538 | 3.13 | 0.0E+00 | BE616666.1 | EST_HUMAN | 601279335F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3611144 5' |
| 11734 | 23920 | 37545 | 1.59 | 0.0E+00 | AV757420.1 | EST_HUMAN | AV757420 BM Homo sapiens cDNA clone BMFAGH03 5' |
| 11739 | 23926 | 37550 | 7.33 | 0.0E+00 | AL037746.1 | EST_HUMAN | DKFZp664C187_r1 664 (synonym: hbn2) Homo sapiens cDNA clone DKFZp664C187 6' |
| 11740 | 23928 | 37551 | 4.2 | 0.0E+00 | U62769.1 | NT | Human oxytocinase variant 2 mRNA, complete cds |
| 11745 | 23931 | 37557 | 1.33 | 0.0E+00 | BE883398.1 | EST_HUMAN | 601509139F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3910833 6' |
| 11768 | 24759 | 38454 | 1.75 | 0.0E+00 | Y18890.1 | NT | Human endogenous retrovirus type K (HERV-K), gag, pol and env genes |
| 11769 | 24761 | 38456 | 3.69 | 0.0E+00 | L39891.1 | NT | Homo sapiens polycystic kidney disease-associated protein (PKD1) gene, complete cds |
| 11769 | 24761 | 38456 | 3.59 | 0.0E+00 | L39891.1 | NT | Homo sapiens polycystic kidney disease-associated protein (PKD1) gene, complete cds |
| 11784 | 24774 | 38470 | 2.03 | 0.0E+00 | AU138211.1 | EST_HUMAN | AU138211 PLACE1 Homo sapiens cDNA clone PLACE1008077 5' |
| 11787 | 24787 | 38485 | 6.43 | 0.0E+00 | BE622317.1 | EST_HUMAN | 601441096F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3916270 5' |
| 11833 | 24822 | 38512 | 17.72 | 0.0E+00 | BE748998.1 | EST_HUMAN | 601672186T1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:3839012 3' |
| 11833 | 24822 | 38513 | 17.72 | 0.0E+00 | BE748999.1 | EST_HUMAN | 601672186T1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:3839012 3' |
| 11845 | 24834 | 38527 | 4.58 | 0.0E+00 | AU141882.1 | EST_HUMAN | AU141882 THYRO1 Homo sapiens cDNA clone THYRO1001398 6' |
| 11845 | 24834 | 38528 | 4.59 | 0.0E+00 | AU141882.1 | EST_HUMAN | AU141882 THYRO1 Homo sapiens cDNA clone THYRO1001398 6' |
| 11848 | 24837 | 38531 | 2.7 | 0.0E+00 | AW006022.1 | EST_HUMAN | wz91h01.x1 NCL_CGAP_Bn26 Homo sapiens cDNA clone IMAGE:2560225 3' similar to WP:F53H10.2 OE11040 ZINC FINGER, C2H2 TYPE; |
| 11853 | 25971 | 38537 | 2.73 | 0.0E+00 | BF002333.1 | EST_HUMAN | 7h22b10.x1 NCL_CGAP_C016 Homo sapiens cDNA clone IMAGE:3316699 3' similar to TR:Q13458 Q13458 TRIO.; |
| 11864 | 24852 | 38548 | 1.32 | 0.0E+00 | C06284.1 | EST_HUMAN | C06284 Human pancreatic islet Homo sapiens cDNA similar to insulin receptor |
| 11868 | 24856 | | 1.66 | 0.0E+00 | BE727811.1 | EST_HUMAN | 601564180F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3833730 5' |
| 11872 | 24860 | 38555 | 2.38 | 0.0E+00 | AI472010.1 | EST_HUMAN | ig80a10.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2147802 3' similar to gb:M31681 PROLACTIN RECEPTOR TYPE 2 PRECURSOR (HUMAN); |
| 11878 | 24866 | 38563 | 2.84 | 0.0E+00 | AW387776.1 | EST_HUMAN | MF4-ST0118-261099-012-h03 ST0118 Homo sapiens cDNA |
| 11878 | 24868 | 38564 | 2.84 | 0.0E+00 | AW387776.1 | EST_HUMAN | MF4-ST0118-261099-012-h03 ST0118 Homo sapiens cDNA |
| 11889 | 24877 | | 1.8 | 0.0E+00 | AW863777.1 | EST_HUMAN | MF3-SN0010-310300-107-h03 SN0010 Homo sapiens cDNA |
| 11901 | 24889 | 38569 | 3.67 | 0.0E+00 | 11435244 | NT | Homo sapiens KIAA0247 gene product (KIAA0247), mRNA |
| 11901 | 24889 | 38590 | 3.67 | 0.0E+00 | 11435244 | NT | Homo sapiens KIAA0247 gene product (KIAA0247), mRNA |
| 11907 | 24894 | 38598 | 4.38 | 0.0E+00 | U36253.1 | NT | Human beta-prime-adaptin (BAM22) gene, exon 6 |
| 11911 | 24898 | 38600 | 26.74 | 0.0E+00 | BE379254.1 | EST_HUMAN | 601237691F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3609823 5' |

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 11911 | 24898 | 38601 | 28.74 | 0.0E+00 | BE378254.1 | EST_HUMAN | 601237691F1 NIH_MGC_44 Homo sapiens cDNA, clone IMAGE:3809823 5' |
| 11917 | 24903 | 38606 | 4.87 | 0.0E+00 | AW500056.1 | EST_HUMAN | U1HF-BND-ald-5-03-Q-U1r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3077332 5' |
| 11932 | 24918 | 38821 | 2.05 | 0.0E+00 | BE794758.1 | EST_HUMAN | 601590588F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3944708 5' |
| 11934 | 24920 | 38822 | 65.18 | 0.0E+00 | BE879633.1 | EST_HUMAN | 601491821F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3894220 5' |
| 11935 | 24921 | 38823 | 1.6 | 0.0E+00 | M60676.1 | NT | Human von Willebrand factor pseudogene corresponding to exons 23 through 34 |
| 11941 | 24927 | 38829 | 1.38 | 0.0E+00 | 4759827 | NT | Homo sapiens neuraxin III (NRXN3) mRNA |
| 11941 | 24927 | 38830 | 1.38 | 0.0E+00 | 4759827 | NT | Homo sapiens neuraxin III (NRXN3) mRNA |
| 11948 | 24932 | 38835 | 1.58 | 0.0E+00 | AF053543.1 | NT | Homo sapiens glutathione transferase zeta 1 (GSTZ1) gene, exons 6 and 7 |
| 11953 | 24939 | 38842 | 7.29 | 0.0E+00 | BE409993.1 | EST_HUMAN | 601289403F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3628544 5' |
| 11954 | 24940 | 38843 | 2.22 | 0.0E+00 | BE148650.1 | EST_HUMAN | NR0-HT0241-150600-011-02 HT0241 Homo sapiens cDNA |
| 11955 | 24941 | 38844 | 2.89 | 0.0E+00 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 11955 | 24941 | 38845 | 2.89 | 0.0E+00 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 11956 | 18785 | 31831 | 1.48 | 0.0E+00 | D28535.1 | NT | Human gene for dihydropyrimidine succinyltransferase, complete cds (exon 1-16) |
| 11958 | 18785 | 31832 | 1.48 | 0.0E+00 | D28535.1 | NT | Human gene for dihydropyrimidine succinyltransferase, complete cds (exon 1-16) |
| 11958 | 24943 | 38847 | 11.38 | 0.0E+00 | BF681641.1 | EST_HUMAN | 602155722F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4286725 5' |
| 11958 | 24943 | 38848 | 11.38 | 0.0E+00 | BF681641.1 | EST_HUMAN | 602155722F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4286725 5' |
| 11964 | 24949 | 38855 | 1.79 | 0.0E+00 | AU132940.1 | EST_HUMAN | AU132940 NT2RP4 Homo sapiens cDNA clone NT2RP4000928 5' |
| 11987 | 24952 | 38867 | 4.99 | 0.0E+00 | BE603372.1 | EST_HUMAN | 601676357F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3956835 5' |
| 11983 | 24959 | 38871 | 1.56 | 0.0E+00 | BF312662.1 | EST_HUMAN | 601897524F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4127059 5' |
| 11983 | 24968 | 38872 | 1.56 | 0.0E+00 | BF312662.1 | EST_HUMAN | 601897524F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4127059 5' |
| 11986 | 24971 | 38875 | 3.4 | 0.0E+00 | X51755.1 | NT | Human lambda-de-immunoglobulin constant region complex (germline) |
| 11986 | 24971 | 38876 | 3.4 | 0.0E+00 | X51755.1 | NT | Human lambda-de-immunoglobulin constant region complex (germline) |
| 11988 | 24983 | | 1.96 | 0.0E+00 | BE908402.1 | EST_HUMAN | 601498553F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3600399 5' |
| 12013 | 24987 | | 1.49 | 0.0E+00 | 8638487 | NT | Human endogenous retrovirus, complete genome |
| 12028 | 25872 | | 8.57 | 0.0E+00 | BF309120.1 | EST_HUMAN | 601890534F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4131418 5' |
| 12029 | 25812 | 38713 | 2.37 | 0.0E+00 | BE698861.1 | EST_HUMAN | RC4-NN0026-120600-018-507 NN0025 Homo sapiens cDNA |
| 12029 | 25812 | 38714 | 2.37 | 0.0E+00 | BE698861.1 | EST_HUMAN | RC4-NN0026-120600-018-507 NN0026 Homo sapiens cDNA |
| 12032 | 25015 | 38717 | 60.96 | 0.0E+00 | BE297775.1 | EST_HUMAN | 601177407F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3632868 5' |
| 12046 | 25027 | 38733 | 1.42 | 0.0E+00 | BE744311.1 | EST_HUMAN | 601576525F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3837222 5' |
| 12046 | 25027 | 38734 | 1.42 | 0.0E+00 | BE744311.1 | EST_HUMAN | 601576525F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3837222 5' |
| 12054 | 25035 | 38741 | 2.02 | 0.0E+00 | BE257812.1 | EST_HUMAN | 601113009F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3353378 5' |
| 12054 | 25035 | 38742 | 2.02 | 0.0E+00 | BE257812.1 | EST_HUMAN | 601113009F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3353378 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 12084 | 25084 | 38770 | 2.85 | 0.0E+00 | BE545835.1 | EST_HUMAN | 601070391F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3456407 5' |
| 12087 | 25087 | 38773 | 1.34 | 0.0E+00 | AA399001.1 | EST_HUMAN | 283e01.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:728912 5' similar to SW:PMT1_SCHPO |
| 12088 | 25088 | 38774 | 1.55 | 0.0E+00 | AU117974.1 | EST_HUMAN | P40989 DNA METHYLTRANSFERASE PMT1: |
| 12088 | 25088 | 38775 | 1.55 | 0.0E+00 | AU117974.1 | EST_HUMAN | AU117974 HEMBA1 Homo sapiens cDNA clone HEMBA1002812 5' |
| 12091 | 25071 | 38778 | 1.72 | 0.0E+00 | BE780453.1 | EST_HUMAN | AU117974 HEMBA1 Homo sapiens cDNA clone HEMBA1002812 5' |
| 12108 | 25088 | 38792 | 2.15 | 0.0E+00 | AW269890.1 | EST_HUMAN | 601488712F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3871899 5' |
| 12118 | 25088 | 38803 | 1.99 | 0.0E+00 | AU132394.1 | EST_HUMAN | xx46h03.x1 Soares_NRL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2816213 3' similar to gbl.11708 cds1 HORMONE SENSITIVE LIPASE (HUMAN); |
| 12131 | 25111 | 38815 | 1.35 | 0.0E+00 | BE292840.1 | EST_HUMAN | AU132394 NT2RP3 Homo sapiens cDNA clone NT2RP3004339 5' |
| 12147 | 26185 | 31540 | 9.34 | 0.0E+00 | BE312542.1 | EST_HUMAN | 601105662F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2888325 5' |
| 12160 | 26005 | | 3.02 | 0.0E+00 | AL163246.2 | NT | 601150023F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3603020 5' |
| 12162 | 26013 | | 5.49 | 0.0E+00 | AI190893.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C046 |
| 12172 | 25134 | | 3.73 | 0.0E+00 | AB011399.1 | NT | qel7b12.x1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:1739231 3' |
| 12182 | 25149 | | 6.87 | 0.0E+00 | AL163246.2 | NT | Homo sapiens gene for AF-8, complete cds |
| 12184 | 25151 | | 1.35 | 0.0E+00 | AB016195.1 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 12201 | 25166 | | 3.2 | 0.0E+00 | 11417862 | NT | Homo sapiens ELK1 pseudogene (ELK2) and immunoglobulin heavy chain gamma pseudogene (IGHGP) |
| 12220 | 25170 | | 4.95 | 0.0E+00 | 5802873 | NT | Homo sapiens calcineurin binding protein 1 (KIA00330), mRNA |
| 12284 | 25973 | 31767 | 1.47 | 0.0E+00 | AF240788.1 | NT | Homo sapiens antioxidant protein 1 (AOP1), nuclear gene encoding mitochondrial protein, mRNA |
| 12287 | 25983 | | 3.47 | 0.0E+00 | AL041831.1 | EST_HUMAN | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 12285 | 26146 | | 3.39 | 0.0E+00 | 11418318 | NT | DKFZp434K0819_r1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434K0818 5' |
| 12304 | 25222 | | 4.77 | 0.0E+00 | AL046544.1 | EST_HUMAN | Homo sapiens G-2 and S-phase expressed 1 (GTSE-1), mRNA |
| 12317 | 26017 | | 2.92 | 0.0E+00 | AI803497.1 | EST_HUMAN | DKFZp434G218_r1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434G218 5' |
| 12356 | 26172 | | 1.88 | 0.0E+00 | N54484.1 | EST_HUMAN | IL-BT030-271088-001 BT030 Homo sapiens cDNA |
| 12371 | 25285 | | 4.08 | 0.0E+00 | AF106658.1 | NT | w40e08.e1 Soares_fetal_liver_spleen_1NFLS Homo sapiens cDNA clone IMAGE:245222 3' similar to SW:POL_BAEVM_P10272 POL POLYPYRROLINE |
| 12374 | 14042 | 27108 | 5.36 | 0.0E+00 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 12374 | 14042 | 27107 | 5.36 | 0.0E+00 | 4607600 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 12383 | 26021 | | 3.07 | 0.0E+00 | 10092587 | NT | Homo sapiens nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 2 (NFATC2), mRNA |
| 12415 | 13754 | | 4.88 | 0.0E+00 | AF003528.1 | NT | Homo sapiens X-linked atrichotrich ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |

Page 549 of 550
Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 12460 | 26781 | 31937 | 3.95 | 0.0E+00 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 12510 | 25950 | 31765 | 1.94 | 0.0E+00 | AW590082.1 | EST_HUMAN | hg31906.x1 NCL CGAP_GC8 Homo sapiens cDNA clone IMAGE:2847234 3' similar to contains Alu repetitive element; contains element MER22 repetitive element; |
| 12542 | 25952 | | 1.34 | 0.0E+00 | L20493.1 | NT | Human gamma-glutamyl transpeptidase mRNA, complete cds |
| 12573 | 26015 | | 2.73 | 0.0E+00 | AF068757.1 | NT | Homo sapiens somatostatin receptor subtype 3 (SSTR3) gene, 5' flanking region and partial cds |
| 12618 | 25416 | | 4.61 | 0.0E+00 | 9635487 | NT | Human endogenous retrovirus, complete genome |
| 12638 | 25429 | | 1.19 | 0.0E+00 | AV720678.1 | EST_HUMAN | AV720678 GLC Homo sapiens cDNA clone GLCEPG09 5' |
| 12680 | 26009 | | 3.51 | 0.0E+00 | AI204914.1 | EST_HUMAN | an05h04.x1 Stragene echizo brain S11 Homo sapiens cDNA clone IMAGE:1684769 3' |
| 12694 | 25462 | | 1.33 | 0.0E+00 | AI904946.1 | EST_HUMAN | QV-BT065-020369-103 BT068 Homo sapiens cDNA |
| 12702 | 26008 | | 2.28 | 0.0E+00 | BE439782.1 | EST_HUMAN | HTM1-654F HTM1 Homo sapiens cDNA |
| 12714 | 15187 | 28297 | 1.39 | 0.0E+00 | 6912457 | NT | Homo sapiens calcitriol binding protein 1 (KIAA0330), mRNA |
| 12714 | 15187 | 28298 | 1.39 | 0.0E+00 | 6912457 | NT | Homo sapiens calcitriol binding protein 1 (KIAA0330), mRNA |
| 12739 | 25490 | 32027 | 1.21 | 0.0E+00 | AF036365.1 | NT | Homo sapiens caveolin-3 (CAV3) mRNA, complete cds |
| 12761 | 14869 | 27960 | 3.26 | 0.0E+00 | H30132.1 | EST_HUMAN | ye59s08.r1 Soares breast 3Nbh8st Homo sapiens cDNA clone IMAGE:182248 5' similar to gb:M84099 |
| 12761 | 14869 | 27961 | 3.26 | 0.0E+00 | H30132.1 | EST_HUMAN | GAMMA-GLUTAMYL TRANSPEPTIDASE 5 PRECURSOR (HUMAN); |
| 12765 | 13979 | 27031 | 1.6 | 0.0E+00 | AB011396.1 | NT | GAMMA-GLUTAMYL TRANSPEPTIDASE 5 PRECURSOR (HUMAN); |
| 12766 | 25509 | | 33.13 | 0.0E+00 | D50699.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 12771 | 25514 | 31997 | 5.44 | 0.0E+00 | 11418189 | NT | Human gamma-cytoplasmic actin (ACTGP8) pseudogene |
| 12771 | 25514 | 31998 | 5.44 | 0.0E+00 | 11418189 | NT | Homo sapiens thyroid autoantigen 70kD (Ku antigen) (G22P1), mRNA |
| 12776 | 25518 | | 7.88 | 0.0E+00 | AB028698.1 | NT | Homo sapiens thyroid autoantigen 70kD (Ku antigen) (G22P1), mRNA |
| 12788 | 15294 | 28420 | 1.7 | 0.0E+00 | 4758489 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 12837 | 25537 | | 2.11 | 0.0E+00 | AW694999.1 | EST_HUMAN | Homo sapiens GTP binding protein 1 (GTPBP1) mRNA |
| 12847 | 25693 | 31988 | 1.43 | 0.0E+00 | 11430460 | NT | h95606.x1 Soares NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2978154 3' |
| 12892 | 14409 | 27471 | 1.74 | 0.0E+00 | 8922593 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 12927 | 16658 | 28673 | 3.11 | 0.0E+00 | 4885312 | NT | Homo sapiens hypothetical protein FLJ10697 (FLJ10697), mRNA |
| 12935 | 18404 | 31632 | 2.3 | 0.0E+00 | 6809918 | NT | Homo sapiens G protein-coupled receptor 24 (GPR24), mRNA |
| 12938 | 25617 | | 1.86 | 0.0E+00 | AB028900.1 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 12981 | 25639 | 31983 | 1.82 | 0.0E+00 | 9593724 | NT | Homo sapiens CS1 gene for cerebroside sulfotransferase, exon 1, 2, 3, 4, 5 |
| 13010 | 28197 | | 2.93 | 0.0E+00 | AL163248.2 | NT | Homo sapiens cleavage and polyadenylation specific factor 1, 160kD subunit (CPSF1), mRNA |
| 13017 | 13628 | 26851 | 2.46 | 0.0E+00 | 6809918 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 13113 | 25729 | 31943 | 1.17 | 0.0E+00 | 11417862 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| | | | | | | | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |

Page 550 of 550
Table 4
Single Exon Probe Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|-----------------------------|-------------------------------|--|
| 13116 | 25728 | | 1.4 | 0.0E+00 | AB002059.1 | NT | Homo sapiens DNA for Human P2XM, complete cds |
| 13119 | 25731 | | 3.11 | 0.0E+00 | 7657020 | NT | Homo sapiens DKFZp434P211 protein (DKFZP434P211), mRNA |
| 13140 | 25740 | | 5.96 | 0.0E+00 | AB026898.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 13151 | 26207 | | 1.16 | 0.0E+00 | AW505176.1 | EST_HUMAN | UL-HF-BND-aly-g-08-0-J1.1 NIH_MGC_60 Homo sapiens cDNA clone IMAGE:3081399 6' |
| 13190 | 25774 | | 1.61 | 0.0E+00 | X67147.1 | NT | Human endogenous retrovirus pHE.1 (ERV9) |
| 13209 | 16135 | 29151 | 1.37 | 0.0E+00 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 13209 | 16135 | 28162 | 1.37 | 0.0E+00 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 13215 | 14345 | 27402 | 1.29 | 0.0E+00 | 9966844 | NT | Homo sapiens chromosome 12 open reading frame 3 (C12ORF3), mRNA |

CLAIMS

1. A spatially-addressable set of single exon nucleic acid probes for measuring gene expression in a sample derived
5 from human placenta comprising a plurality single exon nucleic probes, said probes comprising any one of the nucleotide sequences set out in SEQ ID NOS: 1 - 13,232 or a complementary sequence, or a portion of such a sequence.
- 10 2. A spatially-addressable set of single exon nucleic acid probes as claimed in claim 1 wherein each of said plurality of probes is separately and addressably amplifiable.
3. A spatially-addressable set of single exon nucleic acid
15 probes as claimed in claim 1 wherein each of said plurality of probes is separately and addressably isolatable from said plurality.
4. A spatially-addressable set of single exon nucleic acid
20 probes as claimed in any of claims 1 to 3 wherein said probes comprise any one of the nucleotide sequences set out in SEQ ID NOS.: 13,233 - 26,232.
5. A spatially-addressable set of single exon nucleic acid
25 probes as claimed in any of claims 1 to 4, wherein each of said plurality of probes is amplifiable using at least one common primer.
6. A spatially-addressable set of single exon nucleic acid
30 probes as claimed in any of claims 1 to 5 wherein the set comprises between 50 - 20,000 single exon nucleic acid probes.
7. A spatially-addressable set of single exon nucleic acid
35 probes as claimed in any of claims 1 to 6, wherein the

average length of the single exon nucleic acid probes is between 200 and 500 bp.

8. A spatially-addressable set of single exon nucleic acid probes as claimed in any of claims 1 to 7, wherein at least 50% of said single exon nucleic acid probes lack prokaryotic and bacteriophage vector sequence.

9. A spatially-addressable set of single exon nucleic acid probes as claimed in any of claims 1 to 8, wherein at least 50% of said single exon nucleic acid probes lack homopolymeric stretches of A or T.

10. A spatially-addressable set of single exon nucleic acid probes as claimed in any of claims 1 - 9 characterised in that said set of probes is addressably disposed upon a substrate.

11. A spatially-addressable set of single exon nucleic acid probes as claimed in claim 10 wherein said substrate is selected from glass, amorphous silicon, crystalline silicon and plastic.

12. A microarray comprising a spatially addressable set of single exon nucleic acid probes as claimed in any of claims 1 - 11.

13. A single exon nucleic acid probe for measuring human gene expression in a sample derived from human placenta comprising a nucleotide sequence as set out in any of SEQ ID NOs.: 1 - 13,232 or a complementary sequence or a fragment thereof wherein said probe hybridizes at high stringency to a nucleic acid molecule expressed in the human placenta.

14. A single exon nucleic acid probe as claimed in claim 13 comprising a nucleotide sequence as set out in any of SEQ ID NOs.: 13,233 - 26,232 or a complementary sequence or a fragment thereof.
- 5
15. A single exon nucleic acid probe for measuring human gene expression in a sample derived from human placenta which is a nucleic acid molecule having a sequence encoding a peptide comprising a peptide sequence as set out in any
- 10 of SEQ ID NOs.: 26,233 - 38,837, or a complementary sequence or a fragment thereof wherein said probe hybridizes at high stringency to a nucleic acid expressed in the human placenta.
- 15 16. A single exon nucleic acid probe as claimed in any one of claims 13 to 15 wherein said single exon nucleic acid probe comprises between 15 and 25 contiguous nucleotides of said SEQ ID NO.
- 20 17. A single exon nucleic acid probe as claimed in any one of claims 13 to 15, wherein said probe is between 3 - 25 kb in length.
18. A single exon nucleic acid probe as claimed in any one
- 25 of claims 13 - 17, wherein said probe is DNA, RNA or PNA.
19. A single exon nucleic acid probe as claimed in any one of claims 13 - 18, wherein said probe is detectably labeled.
- 30
20. A single exon nucleic acid probe as claimed in any one of claims 13 - 19, wherein said probe lacks prokaryotic and bacteriophage vector sequence.
- 35 21. A single exon nucleic acid probe as claimed in any one

of claims 13 - 20, wherein said probe lacks homopolymeric stretches of A or T.

22. A method of measuring gene expression in a sample
5 derived from human placenta, comprising:
 contacting the microarray of claim 12, with a first
 collection of detectably labeled nucleic acids,
 said first collection of nucleic acids derived
 from mRNA of human placenta; and then
10 measuring the label detectably bound to each probe of
 said microarray.

23. A method of identifying exons in a eukaryotic genome,
comprising:
15 algorithmically predicting at least one exon from
 genomic sequence of said eukaryote; and then
 detecting specific hybridization of detectably labeled
 nucleic acids to a single exon probe,
wherein said detectably labeled nucleic acids are derived
20 from mRNA from the placenta of said eukaryote, said probe
is a single exon probe having a fragment identical in
sequence to, or complementary in sequence to, said
predicted exon, said probe is included within a microarray
according to claim 12, and said fragment is selectively
25 hybridizable at high stringency.

24. A method of assigning exons to a single gene,
comprising:
 identifying a plurality of exons from genomic
30 sequence according to the method of claim 23; and
 then
 measuring the expression of each of said exons in a
 plurality of tissues and/or cell types using
 hybridization to single exon microarrays having a
35 probe with said exon,

wherein a common pattern of expression of said exons in said plurality of tissues and/or cell types indicates that the exons should be assigned to a single gene.

- 5 25. A nucleic acid sequence as set out in any of SEQ ID Nos: 1 - 26,232 which encodes a peptide.

26. A peptide encoded by a sequence as set out in any of SEQ ID Nos: 1 - 26,232.

10

27. A peptide comprising a sequence as set out in any of SEQ ID Nos: 26,233 - 38,837.

1/10

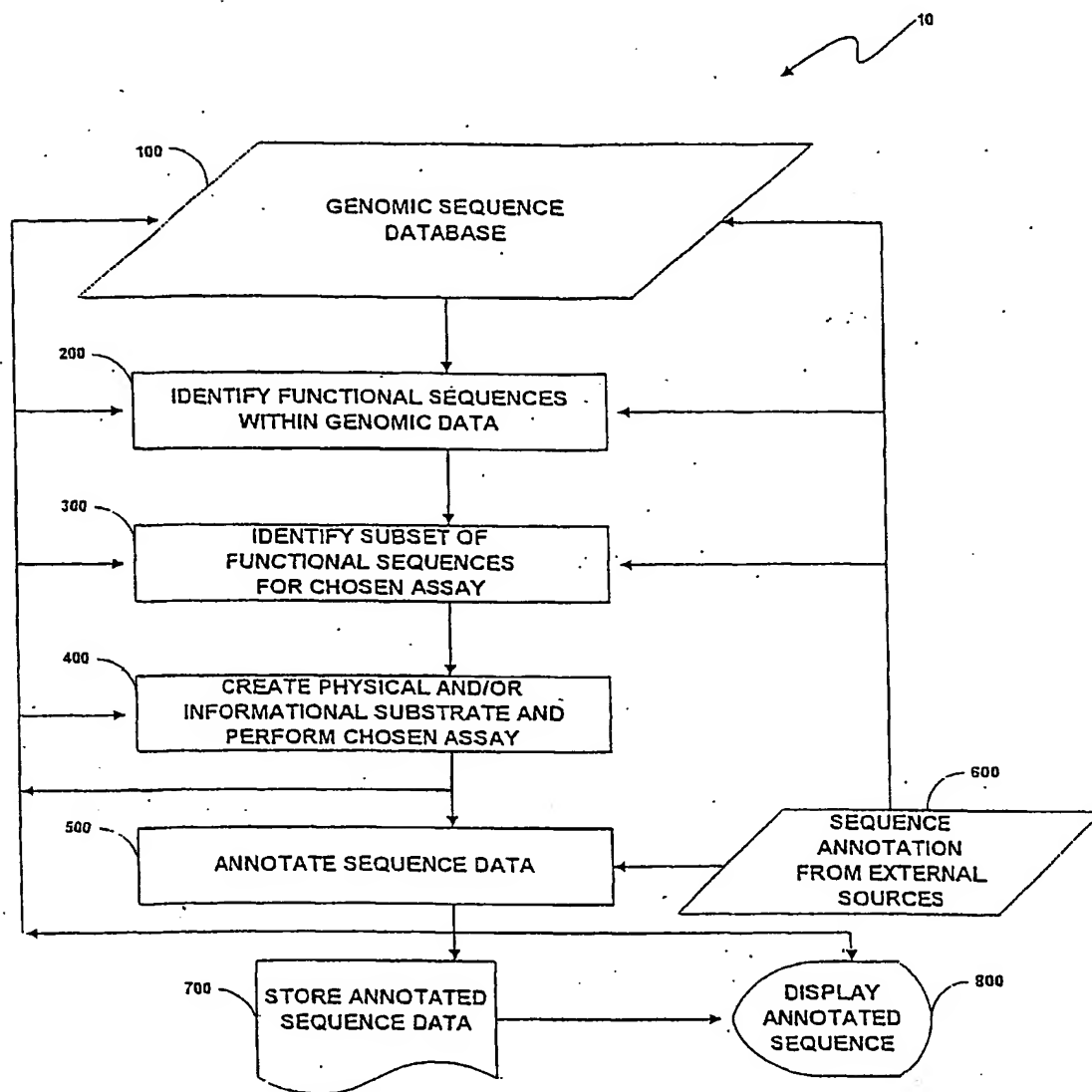


Fig. 1

2/10

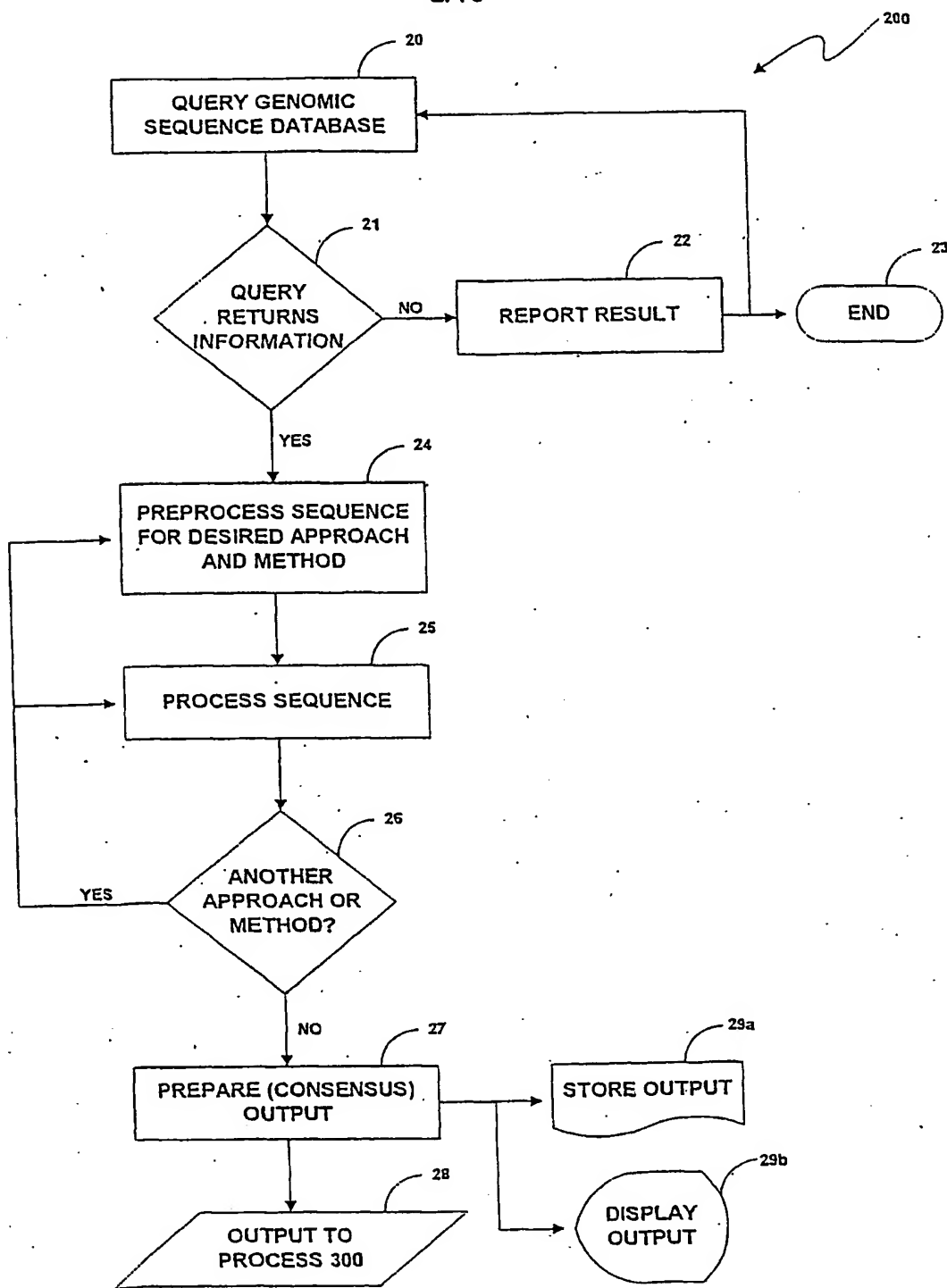


Fig. 2

3/10

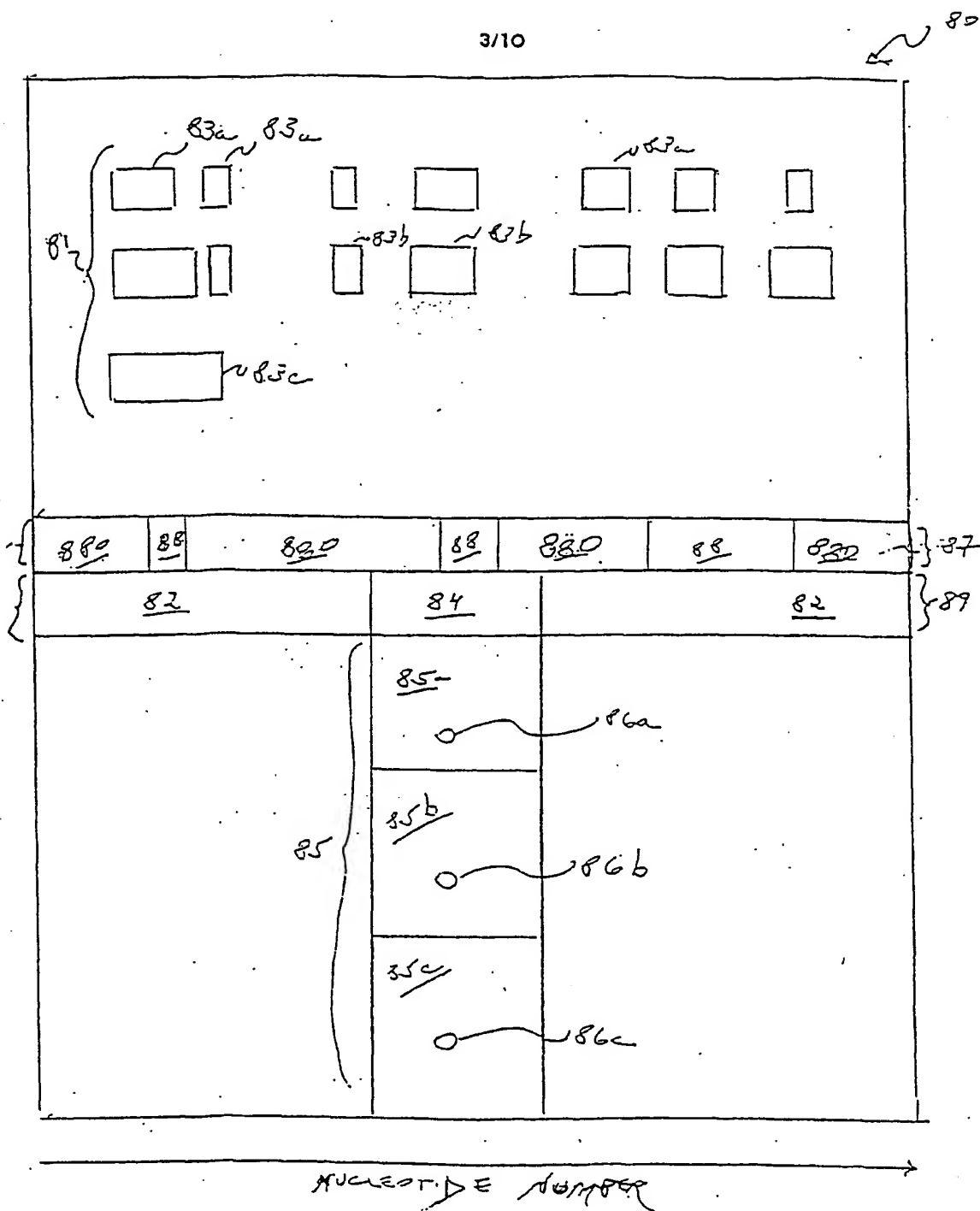


Fig. 3

4/10

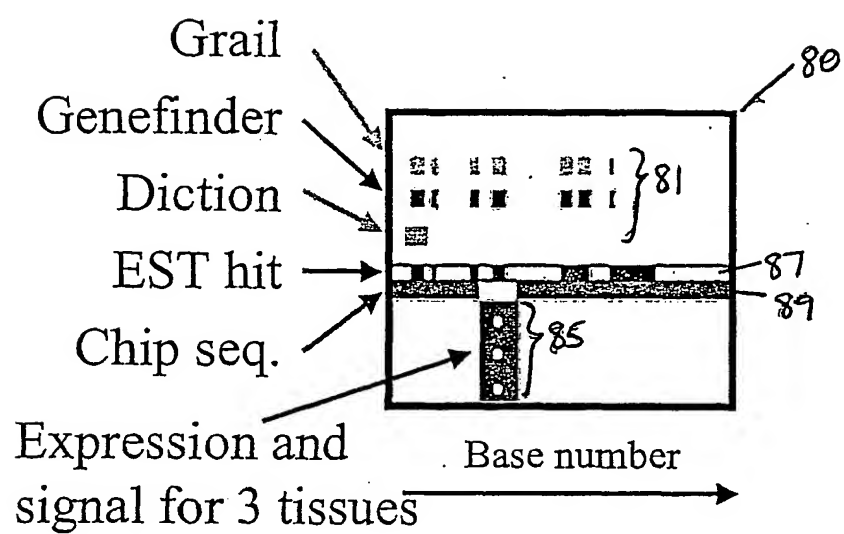


Fig. 4

5/10

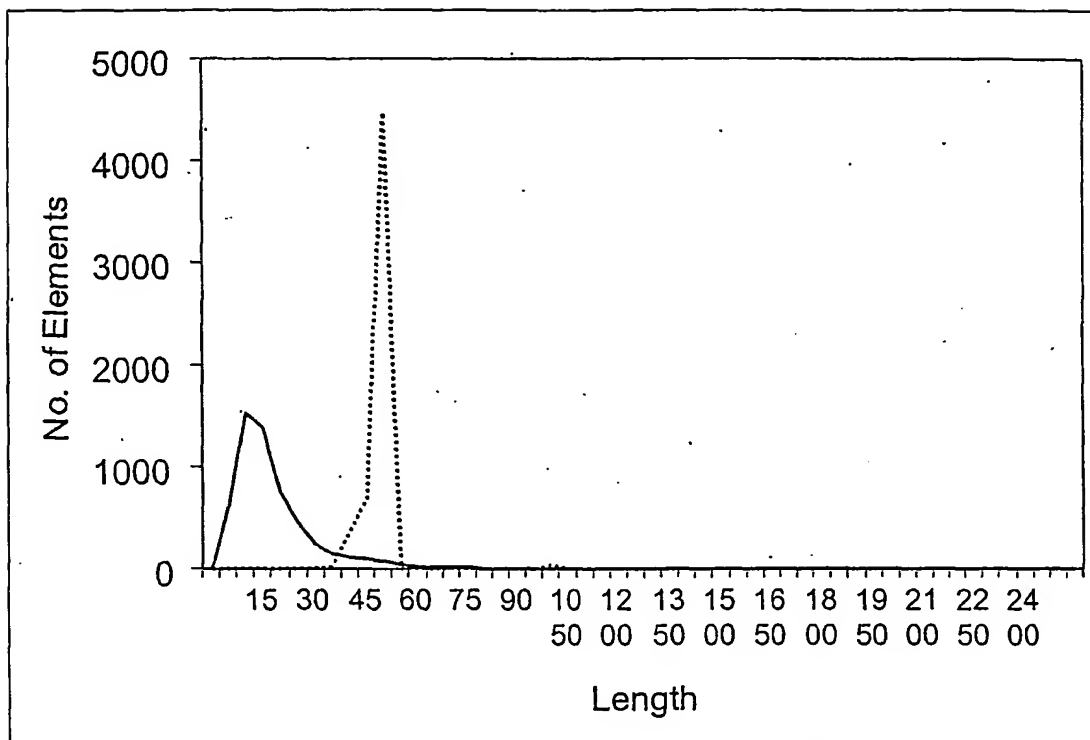


Fig. 5

6/10

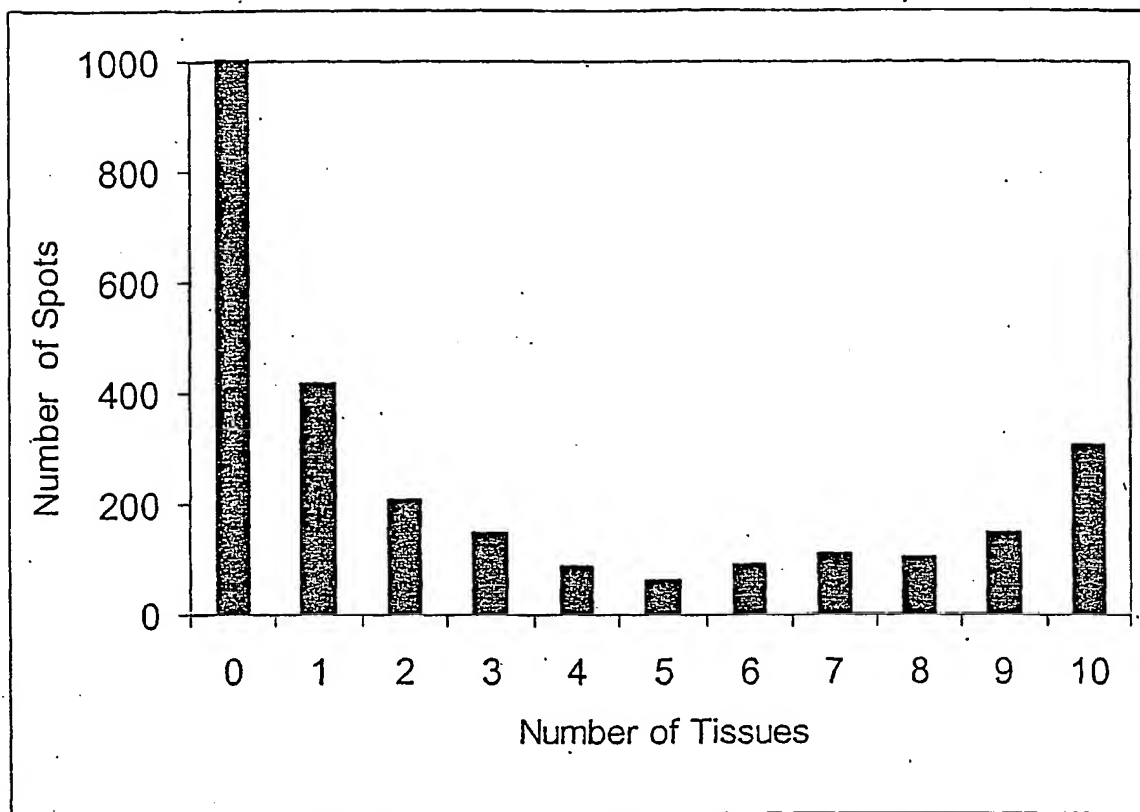


Fig. 6



EST Hit
Bone Marrow
Brain
BT474
Fetal Liver
HBL100
Heart
Hela
Liver
Lung
Placenta

Fig. 7a

ratio legend

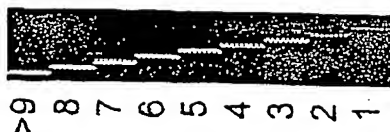


Fig. 7b

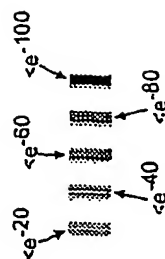


Fig. 7c

8/10

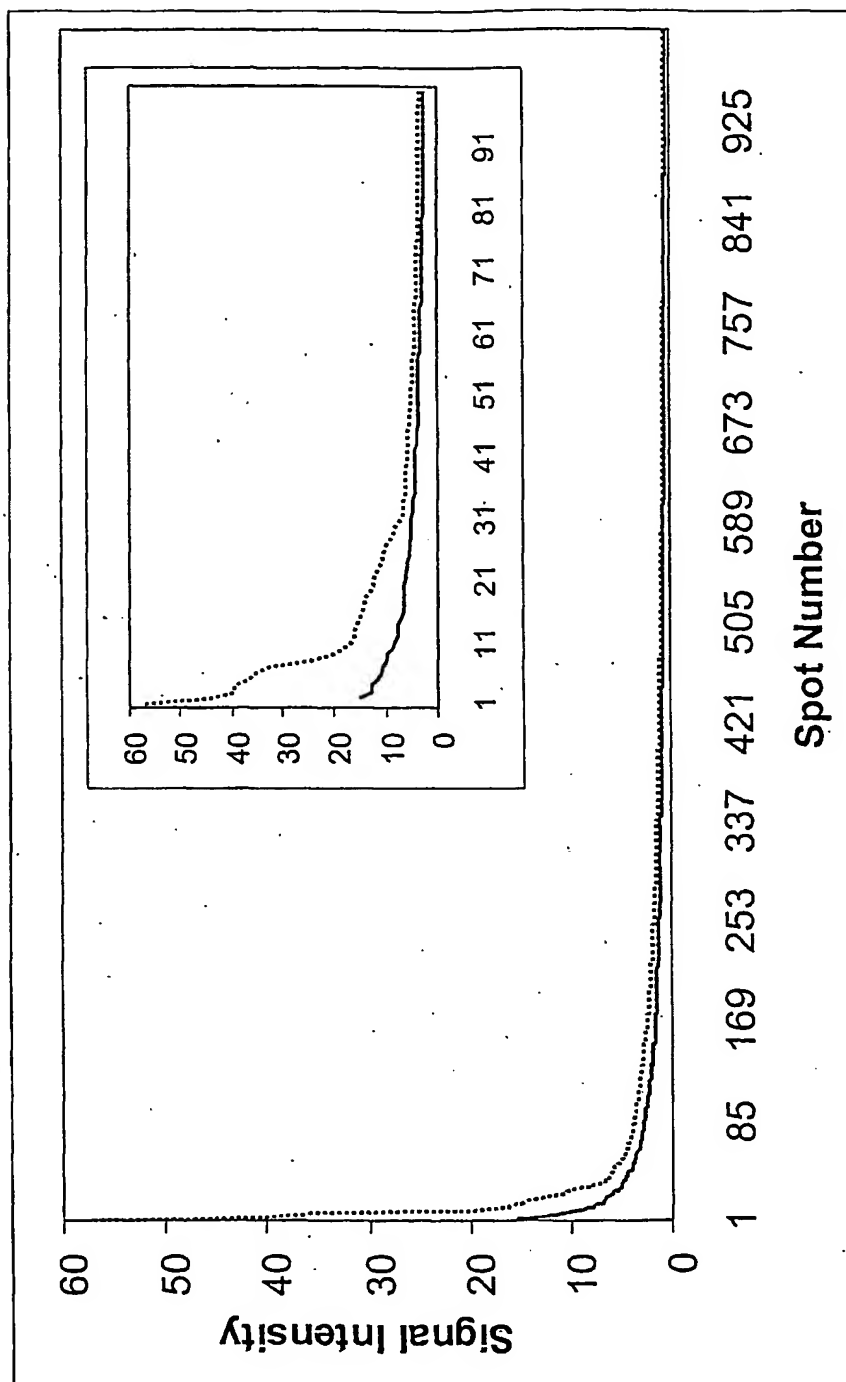


Fig. 8

9/10

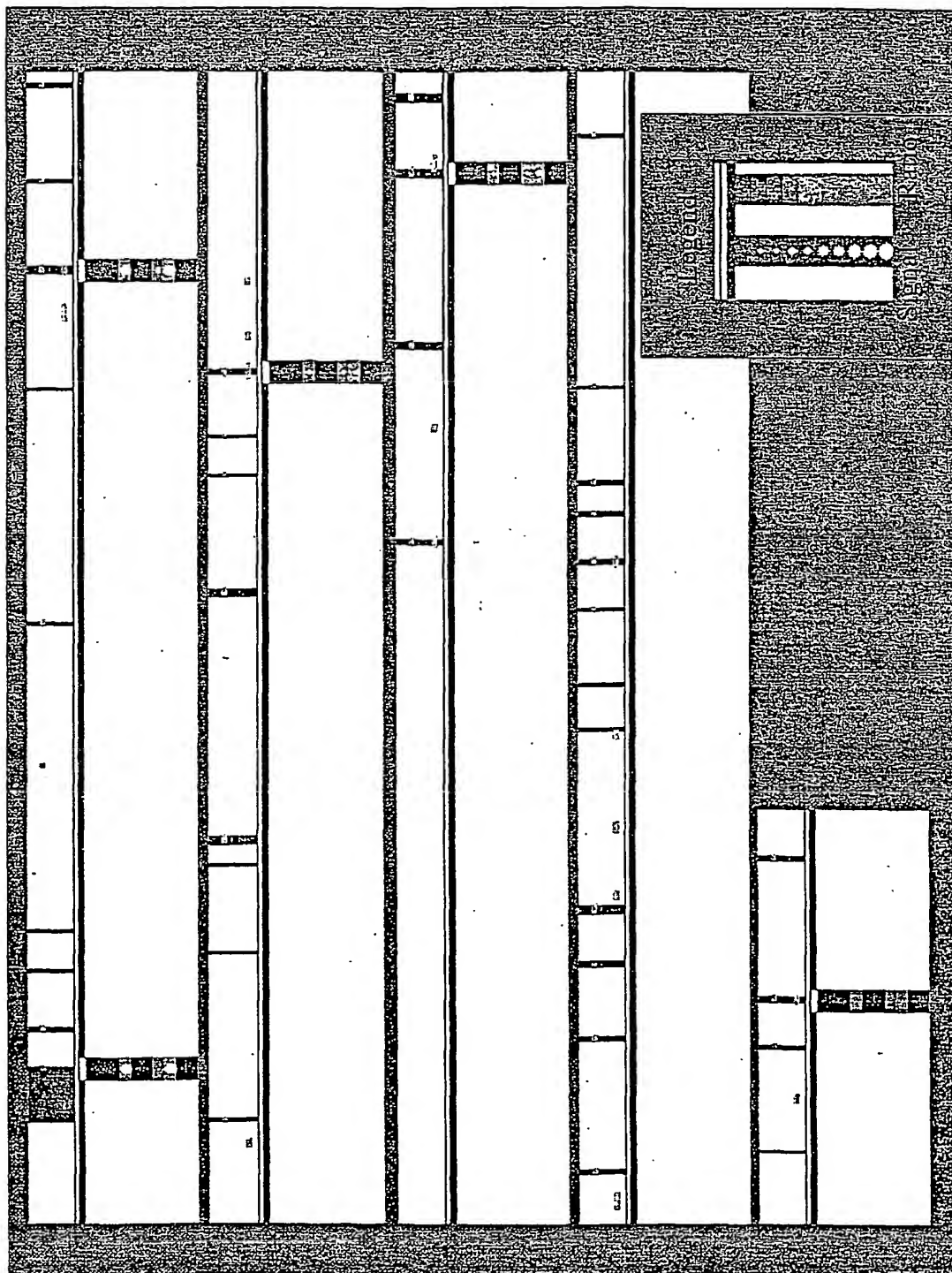


Fig. 9

10/10

Fig. 10

